

Faculty of Economics and Business

The Technological-Organisational-Environmental Factors and Performance of SMEs in the Sarawak Service Sector: The Mediating Effect of Technology Adoption

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DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

Various studies have explored the TOE framework within larger corporations, but its application to SMEs remains relatively uncharted territory. This study investigates whether technology adoption has a mediating effect on the relationship between technological-organisational-environmental (TOE) factors and the performance of SMEs, considering both financial and non-financial aspects in Sarawak's service sector. The TOE dimensions consist of relative advantage, compatibility, and complexity (technological); firm size, top management support, and financial resources (organisational); and competitive pressure, customer pressure, and government support (environmental). A total of 150 questionnaires were distributed, achieving a full response rate from SMEs in Sarawak's service sector. The results showed that all the hypotheses were correlated. The implications of the results indicate that technology adoption by SMEs in Sarawak's service sector is impacted by TOE factors. The study also found that technology adoption influences both the financial and non-financial performance of SMEs in Sarawak's service sector. A strong mediating effect was observed from technology adoption on the relationship between TOE factors and SME performance, for both financial and non-financial outcomes. This study validates the relevance of TOE factors in technology adoption and provides directions for policy improvements for Sarawak's SMEs in the service sector.

Keywords: Technology adoption, Technological-Organisational-Environmental, performance of SMEs, service sector, Sarawak

Faktor Teknologi-Organisasi-Persekitaran dan Prestasi Perusahaan Kecil dan Sederhana dalam Sektor Perkhidmatan di Sarawak: Kesan Penyederhana Penerapan Teknologi

ABSTRAK

Pelbagai kajian telah meneroka rangka kerja teknologi-organisasi-persekitaran (TOE) dalam syarikat-syarikat besar, tetapi penerapannya dalam PKS masih merupakan aspek kajian yang kurang diterokai. Kajian ini menyiasat sama ada penerapan teknologi mempunyai kesan penyederhana terhadap hubungan antara faktor-faktor TOE dan prestasi PKS, dengan mengambil kira aspek kewangan dan bukan kewangan dalam sektor perkhidmatan di Sarawak. Dimensi TOE terdiri daripada kelebihan relatif, keserasian, dan kompleksiti (teknologi); saiz firma, sokongan pengurusan atasan, dan sumber kewangan (organisasi); serta tekanan persaingan, tekanan pelanggan, dan sokongan kerajaan (persekitaran). Sebanyak 150 soal selidik telah diedarkan, mencapai kadar maklum balas penuh daripada PKS dalam sektor perkhidmatan Sarawak. Keputusan kajian menunjukkan bahawa semua hipotesis adalah signifikan. Implikasi kajian menunjukkan bahawa penerapan teknologi oleh PKS dalam sektor perkhidmatan Sarawak dipengaruhi oleh faktor-faktor TOE. Kajian juga mendapati bahawa penerapan teknologi mempengaruhi prestasi kewangan dan bukan kewangan PKS. Kesan penyederhanaan didapati dari penerapan teknologi terhadap hubungan antara faktor-faktor TOE dan prestasi PKS, aspek kewangan dan bukan kewangan. Hasil kajian ini menyediakan hala tuju penambahbaikan dasar bagi PKS dalam sektor perkhidmatan di Sarawak.

Kata kunci: Penerimaan teknologi, Teknologi-Organisasi-Persekitaran, prestasi PKS, sektor perkhidmatan, Sarawak, Prestasi Kewangan, Prestasi Bukan Kewangan

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LIST OF ABBREVIATIONS

AI	Artificial Intelligence
AVE	Average Variance Extracted
CEO	Chief Executive Officer
CES	Corporate Environmental Sustainability
CFA	Confirmatory Factor Analysis
CFO	Chief Financial Officer
COO	Chief Operation Officer
CR	Composite Reliability
CRM	Customer Relationship Management
CV	Convergent Validity
CVR	Cross-Validated Redundancy
DOI	Diffusion of Innovation
DOSM	Department of Statistics Malaysia
EDI	Electronic data interchange
EFA	Exploratory Factor Analysis
GDP	Gross Domestic Product
GoF	Goodness-of-Fit
ICT	Information Technology System
IoT	Internet of Things
KMO	Kaiser-Meyer-Olkin
MCO	Movement Control Order
MIT	Massachusetts Institute of Technology

NFI	Normal Fit Index
PLS-SEM	Partial-Least-Squares Structural Equation Modeling
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
SRMR	Standardized Root Means Square Residual
TOE	Technology-Organisation-Environment
TBL	Triple Bottom Line
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.1 Introduction

Amidst the COVID-19 pandemic, the readiness of firms to adopt technological processes became a cornerstone in mitigating transaction costs and ensuring streamlined services, despite Movement Control Order (MCO) restrictions. The adoption of technologies for online transactions, social media, virtual platforms, websites, systems, software, cloud computing, and more became highly prevalent during the COVID-19 pandemic. This widespread adoption allowed firms to reduce transaction costs and provide better and faster services to their customers under MCO restrictions (Ahmad, Hanafi, Abdullah, Daud, & Toolib, 2020). Technology not only enabled firms to reduce costs but also facilitated enhanced service delivery to customers, which was critical for survival during the crisis. This adoption empowered firms, especially small and medium enterprises (SMEs), to navigate the challenging landscape by optimizing various facets of their operations (Mahendhiran, 2020). The integration of technology significantly transformed SME operations, allowing for efficient resource management, optimized supply chains, improved financial management, and enhanced communication channels. Consequently, technology has helped many firms achieve better survival and sustainability through more efficient operations, impacting areas such as resource management, raw material procurement, financing, communication channels, deliveries, training, and services (Prasanna, Jayasundara, Gamage, Ekanayake, Rajapakshe, & Abeyrathne, 2019).

By leveraging technology, SMEs were able to overcome logistical hurdles, ensure timely deliveries, and facilitate remote training and services. More significantly, technology acted as a catalyst for innovation within SMEs (Omrani, Rejeb, Maalaoui, Dabic, & Kraus, 2022). It spurred the development of novel operational processes, innovative manufacturing techniques, and the creation of new products and services. This innovation was not just a response to immediate needs but also became a cornerstone for long-term resilience and growth. Technology enabled numerous innovative developments in operations processes, manufacturing, products, and services, allowing many SMEs to operate in new ways and enhance their performance (National Entrepreneur and SME Development Council, 2022). The Malaysian Investment Development Authority (2018) underscores the critical importance of prioritizing SME development as Malaysia progresses towards industrialization. The data emphasizes that focusing on SME growth is pivotal, not just for maintaining economic momentum but also for ensuring sustainable evolution. Malaysia's shift towards industrialization necessitates a robust SME sector to drive and sustain this transformation. Crucially, the government's proactive introduction of the SME Masterplan 2.0 (2021–2030) solidifies this commitment. This comprehensive strategy seeks to invigorate SME engagement within international and digital markets, recognizing their pivotal role in the economy (Muhamad, Mohamad, & Nor, 2021).

Furthermore, the Masterplan stands as a testament to the government's dedication to enabling SMEs to adapt and thrive within the evolving digital landscape characterized by Industry 4.0. By focusing on aligning SME business strategies with digitalization trends, this initiative aims to equip SMEs with the necessary tools and strategies to succeed in a globalized, technology-driven business environment (Muhamad et al., 2021). This deliberate

emphasis on SME empowerment not only aligns with Malaysia's industrial aspirations but also lays the foundation for a competitive and adaptive SME sector in the digital era. Consequently, studies on the performance of SMEs remain key as policy considerations evolve over time (Prasanna et al., 2019).

1.1.1 Technology Adoption

The adoption of technology has significantly transformed the way businesses operate, influencing human behaviors, preferences, and spending patterns. This transformation has proven advantageous for various management strategies, including communication, information access, data management, decision-making, and knowledge management, as emphasized by Adeosun et al. (2008). Technology has enabled small and medium-sized enterprises (SMEs) to expand and diversify their operational approaches. They can leverage data analytics to gain market insights, establish an online presence to broaden their reach, and utilize digital tools for more efficient customer engagement (Niemand, Regtering, Kallamunzer, Kraus, & Maalaoui, 2021). The adoption of technology has allowed SMEs to swiftly adapt to changing consumer behavior, ensuring their continued relevance in a dynamic market environment. The integration of technology is expected to remain a crucial element in determining the future success of SMEs. Ongoing technology adoption is essential not only for effectively navigating crises but also for fostering continuous growth, competitiveness, and adaptability in an increasingly technology-centric business environment. According to a study conducted by Ahmad and Jamil (2020), the performance of SMEs can be assessed based on the competitive strategies they employ, including the adoption of technology. Consequently, businesses that possess a superior advantage in technology adoption achieve better performance compared to their competitors. The study's

results demonstrated that companies gaining a competitive edge by incorporating technology into their operations significantly outperformed their competitors within the same industry (Ahmad & Jamil, 2020).

1.1.2 Technology-Organisation-Environment (TOE) Framework

The Technology-Organisation-Environment (TOE) framework is commonly employed to enhance the understanding of businesses' commitment to adopting technology across various domains, as it highlights a firm's inclination to embrace technological advancements (Nguyen et al., 2022). Tornatzky and Fleischer (1990) developed the TOE framework as a systematic tool for examining the connections between a company's technological capabilities, organisational structure, and external environmental factors. Since its inception, this approach has gained significant influence in analyzing the effects of various factors on technology adoption in organisations and the decision-making processes of small and medium-sized enterprises (Lada et al., 2023). Qalati, Li, Ahmed, Mirani, and Khan (2021) demonstrated that the TOE model directly impacts SMEs by providing both empirical evidence and a theoretical foundation on technology, organisation, and environment. They also developed a conceptual framework that shows how factors within the TOE framework affect SMEs. Prior studies have highlighted the importance of the TOE model in explaining the factors that influence technology adoption among SMEs, including technological, organisational, and environmental factors. These factors are also found to be correlated with SME performance, as suggested by a stream of past studies by Dadhich and Hiran (2022), Nguyen, Le, and Vu (2022), Jalil, Ali, and Kamarulzaman (2021), Qalati et al. (2021), Disu and Yo (2018), and Maduku, Mpinganjira, and Duh (2016).

The TOE framework centralizes technological factors within SMEs, emphasizing the paramount significance of both current integrated technologies and those available but not yet adopted. These existing technologies not only set the stage for potential advancements but also serve as crucial foundations for evaluating and integrating new innovations (Omrani et al., 2022). Market-available innovations in technology act as benchmarks, delineating the boundaries of possibility and providing pathways for adaptation. Industries experiencing incremental changes permit measured adoption, while those encountering disruptive innovations demand swift decisions for SMEs to maintain competitive sustainability (Qalati et al., 2021). The assessment of innovations extends beyond their technological impact to determine whether they enhance existing competencies or render them obsolete. Therefore, understanding the technological landscape is pivotal in assessing the potential impact of new innovations on SMEs and their ability to bring about profound or incremental shifts within the SME and its competitive landscape (Bryan & Zuva, 2021).

The organisational factors within the TOE framework encompass a SME's attributes and resources, including internal employee linkages, communication dynamics, size, and the allocation of slack resources, all of which significantly influence adoption and implementation choices (Zhong & Hee, 2023). The pivotal organisational structure of SMEs in this context highlights that organic and decentralized setups, fostering team collaboration, flexible roles, and lateral communication, correlate with enhanced adoption, while mechanistic structures may favor implementation (Nguyen et al., 2022). However, the relationship between SME size and innovation remains inconclusive, prompting a nuanced evaluation of specific organisational factors beyond mere size metrics (Jilani, Moniruzzaman, Mouri, Alam, & Uddin, 2022). Recognizing the importance of the organisational context

within the TOE framework underscores its critical role in shaping strategic decisions and innovation efforts.

The environmental factors within the TOE framework encompass industry structures, technology infrastructure, and regulatory frameworks, which collectively steer the trajectory and momentum of technological advancement. Notably, intensified industry competition among SMEs acts as a driver, fostering a culture of innovation spurred by influential market players and collaborative practices within value chains. The foundation for technological advancement lies in robust technology infrastructure, where the availability of skilled labor and accessible technology services becomes crucial, particularly in response to cost-driven imperatives (Zhong & Hee, 2023). Recognizing the pivotal role of the environmental context is imperative for SMEs, as it not only shapes but also challenges their innovation pathways, offering a complex interplay of constraints and opportunities that are crucial for navigating the evolving technological landscape (Disu & Yo, 2018).

1.1.3 Performance of SMEs

Business performance is measured in a variety of ways and is typically divided into two broad categories: financial performance and non-financial performance. To adapt to the changing environment, it is necessary to combine financial measurements with other non-financial measures in studies relevant to SMEs (Rosli & Sidek, 2013). In this study, the evaluation of SME performance is considered from both financial and non-financial perspectives (Guo, Yang, Huang, & Guo, 2020). This comprehensive approach aims to provide a deeper understanding of SME competitiveness and resilience. While financial metrics offer tangible insights into monetary success, non-financial indicators shed light on

adaptability and market positioning (Ahmad & Jamil, 2020). Such an inclusive assessment approach is vital for SMEs navigating dynamic and competitive markets, as it allows for a more holistic understanding of the factors driving success or posing challenges within these enterprises. Ultimately, this integrated evaluation framework serves as a valuable tool for SMEs, enabling informed decision-making, refined strategies, and sustained growth and relevance in their respective industries. Therefore, the performance of SMEs in this study is measured from both financial and non-financial perspectives.

1.2 Background of the Study

SMEs remain an integral component of many national economies, particularly in emerging markets. According to the World Bank (2023), this global enterprise segment serves as the cornerstone for employment and economic progress, accounting for over 90% of businesses globally and providing half of global job opportunities. Malaysia heavily relies on SMEs for economic progress, with SMEs accounting for an impressive 97.2% share of business entities and contributing 38.2% towards gross domestic product (GDP). Furthermore, these SMEs provide employment opportunities to approximately 7.3 million individuals (Organisation for Economic Co-operation and Development, 2022). According to Christine (2023), Malaysian SME registration data demonstrates a trend towards microenterprises being the predominant force, making up 76.5% of registered businesses, followed by small enterprises (21.2%) and medium-sized enterprises (2.3%). SMEs tend to focus on services, which comprise 98.12% of their activities, with other sectors where SMEs have significant operational presences including manufacturing, construction, agriculture, mining, and quarrying (Ahmad et al., 2020).

The Department of Statistics Malaysia (2023) recently revealed updates for GDP by production, showing that the service sector accounts for 58.6% of shares, ranking as the highest, followed by the manufacturing sector with 24%, the mining and quarrying sector with 6.4%, the agriculture sector with 6.3%, and the construction sector with 3.5%, as shown in Figure 1.1. This indicates that Malaysia's economy is heavily impacted by the service sector. Furthermore, SMEs remain major contributors in the market, playing a pivotal role in the economy as service providers and suppliers to larger corporations, while also creating jobs and growing into significant contributors to national employment landscapes (Adan & Hussain, 2021).

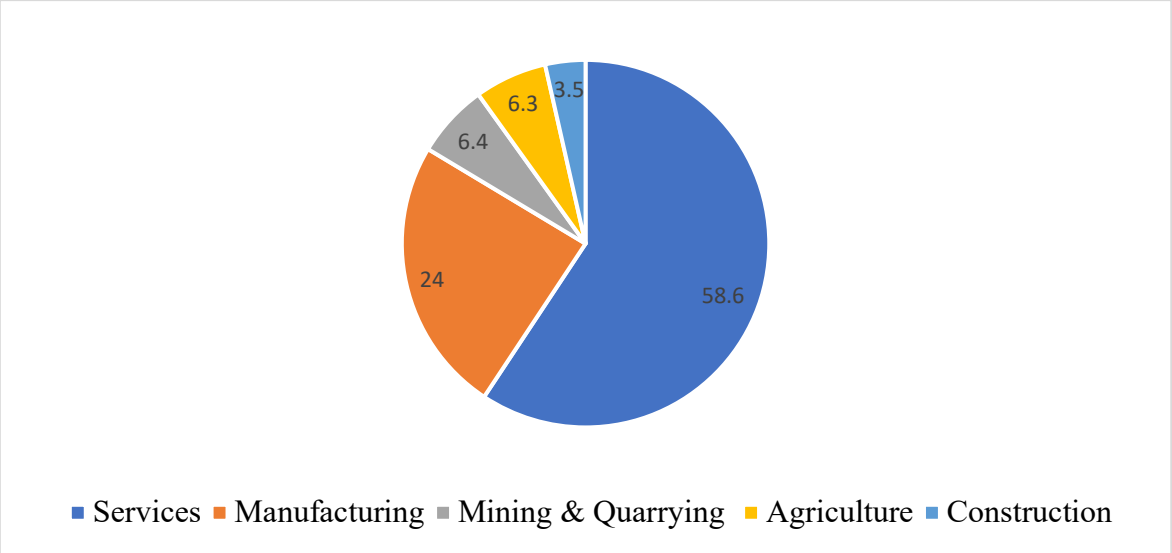


Figure 1.1: GDP by Production
Source: Department of Statistics Malaysia (2023)

1.2.1 Definition of SMEs in Malaysia

This study applied a revised definition of SMEs in Malaysia, as initiated by Bank Negara Malaysia in 2017, as shown in Table 1.1. The official definition for SMEs in Malaysia sets distinct parameters for the manufacturing and service sectors. According to the Small Medium Enterprise Development Bank Malaysia (2020), the benchmark for SME classification involves annual revenues not surpassing RM50 million or a workforce of no more than 200 full-time employees for manufacturing enterprises. In contrast, the classification for services and other sectors entails annual revenues not exceeding RM20 million or employing no more than 75 full-time workers (Small Medium Enterprise Development Bank Malaysia, 2020).

These refined criteria play a pivotal role in categorizing and understanding the landscape of businesses in Malaysia. They facilitate a nuanced comprehension of the diverse nature of SMEs across different sectors, serving as crucial guidelines for research endeavors and policy formulation (SMEs Corporation Malaysia, 2023). Moreover, these parameters hold significant implications for the formulation of targeted strategies, economic planning, and the provision of tailored support systems, ultimately contributing to fostering entrepreneurship and sustainable economic growth within the Malaysian SME ecosystem (SMEs Corporation Malaysia, 2023). The following Table 1.1 presents a guideline for categorizing SMEs in the Malaysian context, as adopted from SME Corporation Malaysia (2023); this information serves as a guideline for categorizing SMEs in this study.

Table 1.1: SMEs Categories in Malaysia

Category	Manufacturing	Services and Other Sectors
Micro	Sales turnover of less than RM300,000 OR full-time employees less than 5	
Small	Sales turnover from RM300,000 to less than RM15 million OR full-time employees from 5 to less than 75	Sales turnover from RM300,000 to less than RM3 million OR full-time employees from 5 to less than 30
Medium	Sales turnover from RM15 million to not exceeding RM50 million OR full-time employees from 75 to not exceeding 200	Sales turnover from RM3 million to not exceeding RM20 million OR full-time employees from 30 to not exceeding 75

Source: SME Corporation Malaysia (2023)

1.2.2 Sarawak Context of Technology Adoption

This study can be refined to specifically focus on a regional level, particularly Sarawak. The Sarawak government's numerous initiatives and substantial financial aid dedicated to SME-related activities underpin this decision. According to Datuk Amar Awang Tengah Ali Hasan in the press released as mentioned by Anyap (2023) in *New Sarawak Tribune*, the Sarawak state government allocated RM6 million to aid 600 SMEs in 2021, with a further RM5 million earmarked to benefit 500 SMEs by 2023 (Anyap, 2023). Additionally, SMEs received loans totaling RM101.6 million, benefiting 2,500 enterprises, while subsidy schemes supported 4,702 SMEs with a substantial sum of RM83.44 million (Department of Statistics Malaysia, 2023). Furthermore, the government actively invested in growth-oriented programs, disbursing RM10.91 million to 1,291 Sarawak-based SMEs through various collaborative efforts with diverse agencies (Anyap, 2023).

Moreover, the Sarawak government has invested significant efforts in promoting technology adoption and digital initiatives across all economic sectors, envisioning a digitally driven economy that fosters productivity, efficiency, and higher-skilled

employment opportunities for Sarawakian citizens (Bernama, 2023). The Digital Economic Blueprint 2030 which released by Economic Planning Unit Sarawak (2023), which serves as a strategic roadmap, encapsulates this commitment, guiding Sarawak towards an environmentally sustainable and technologically advanced future. This blueprint is further supported by Sarawak, with Premier Tan Sri Datuk Patinggi Abang Abdul Rahman Zohari bin Tun Datuk Abang Openg anticipating that these initiatives in an official statement stated by Lihan (2024) in *New Sarawak Tribune*, along with the blueprint, will contribute RM56.4 billion to the state's gross domestic product (GDP) by 2030 (Department of Statistics Malaysia, 2023).

In addition, Sarawak made an outstanding contribution of RM140,161 million toward the national GDP in 2022, ranking fourth on the nation's list (Department of Statistics Malaysia, 2023). Sarawak, located in the eastern part of Malaysia, benefits from an abundance of natural resources such as oil, natural gas, timber, and land. Sarawak comprises several different divisions, including Kuching, Samarahan, Sri Aman, Betong, Sarikei, Sibu, Mukah, Bintulu, Kapit, Miri, and Limbang, which collectively host approximately 2,907,500 residents as of 2020. According to the Sarawak State Secretary Office (2023), Sarawak's capital city of Kuching boasts the highest population at 812,900, followed by Miri (433,800) and Sibu (349,700). Limbang has the lowest population at 103,100, followed by Sri Aman with 111,400, and Betong with 128,000 (Sarawak State Secretary Office, 2023).

Given Sarawak's significant contribution to GDP and the diversity across its divisions, research in Sarawak holds great potential to provide insight into SME dynamics and their economic contributions. SMEs constitute more than 75 percent of the business

sector in Sarawak. They contribute significantly, making up about 20% of Sarawak's GDP and offering employment to approximately 600,000 individuals (S-Sarawak, 2023). Figure 1.2 shows Sarawak's population by division as adopted from the Sarawak State Secretary Office (2023); this information serves as a guideline for the study focus.

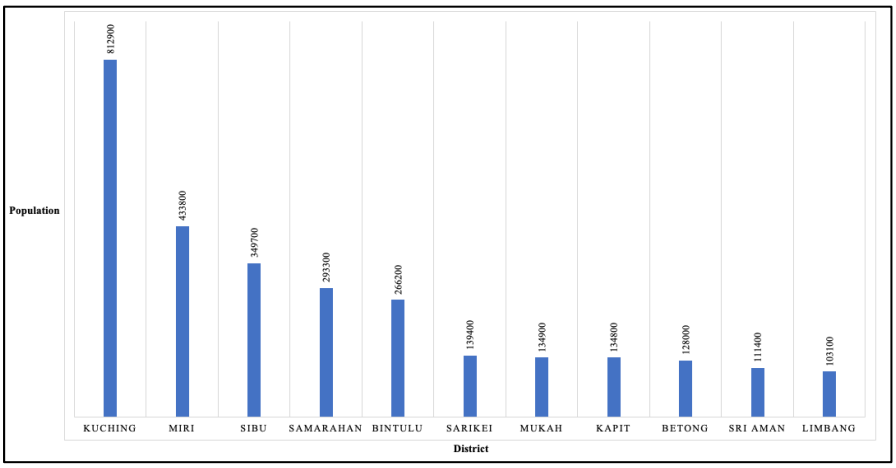


Figure 1.2: Sarawak Population by Division
Source: Sarawak State Secretary Office (2023)

1.2.3 Service Sector

Malaysia's service sector stands as a pivotal force in propelling economic growth, holding a prominent position in the GDPs of several nations, including the US, Japan, Brazil, India, and Singapore. The integral role of Malaysia's service sector in the country's economic planning underscores its significance (Kamaruddin & Shamsudin, 2021). Supporting this assertion, data from the Department of Statistics Malaysia (DOSM) revealed that SMEs within the service industries contributed a notable 58% to Malaysia's GDP in 2022 (Department of Statistics Malaysia, 2023). The 10.9% growth of Malaysia's service sector in 2022, primarily driven by the wholesale and retail trade, transportation and storage, and real estate and business services subsectors, exemplifies this robust performance (Department of Statistics Malaysia, 2023). Factors such as the resurgence of tourism

activities after the reopening of international borders, heightened consumer spending, increased adoption of digitalization across sectors, and amplified demand for professional services were instrumental in this growth. Forecasts for 2023 suggest continued expansion of the service sector, with an anticipated growth rate of 5.3% or higher, buoyed by domestic demand and stable global activity (Department of Statistics Malaysia, 2023).

The study by Lee, Rahman, and Bukhari (2023) identified several key contributors to the service sector's GDP performance, including retail trade, transportation and storage services, business services, government services, real estate development, accommodation services, food and beverage production, information and communication technology, finance, and other related services (Lee et al., 2023). Previous studies have highlighted the significance of the TOE framework within the service sector, particularly due to its prevalence among SMEs in Malaysia. Furthermore, research by Omar, Mojolou, and Kasuma (2015) suggested that these studies should emphasize the Sarawak context. The service sector in Sarawak accounts for the largest share, comprising 35% of the total share (Ali, 2023). The World Bank's classification of Sarawak as a high-income status area signifies the state's dedication to attracting both foreign and domestic investment into its energy-based industrial sector, as highlighted by Apurya Sanghi, the lead economist for World Bank Malaysia (Ali, 2023).

Given the sector's profound impact on both national and state GDPs and its alignment with Sarawak government initiatives, this study concentrates on the service sector within Sarawak. This strategic focus aligns with the sector's status as a primary contributor to both national and state economies and with Sarawak's strategic developmental goals. The study's

focus on Sarawak's service sector underscores its paramount importance within the region's economic landscape. With the service sector playing a central role in contributing significantly to both national and state GDPs, delving into this domain becomes imperative. By aligning the study's objectives with Sarawak's strategic developmental objectives, this research aims to shed light on an area that stands as a primary driver of economic growth. By exploring the intricacies of the service sector within Sarawak, this research seeks to unravel vital insights that resonate with the region's economic aspirations. Aligning the study's objectives with Sarawak's strategic developmental goals, this targeted investigation will enrich our understanding of the dynamics and contributions of this critical sector.

This study gathered primary data through a structured questionnaire distributed to a carefully selected sample of SMEs. Demographic information was obtained from a listing provided by SME Corporation Malaysia (2023), renowned for its trustworthy SME database, to ensure reliability. Cooperation with this entity is critical for data credibility. According to SME Corporation Malaysia (2023), the agency holds records of 321 registered SMEs in Sarawak's service sector, where registration with SME Corporation Malaysia is mandatory for Sendirian Berhad companies but optional for sole proprietorship businesses in Sarawak due to different legal requirements. This methodology ensures a comprehensive view of SMEs, encompassing various structures and sizes in Sarawak's service sector. Additionally, the agency underscores the significant presence of vibrant service-oriented enterprises in the Kuching Division. This shapes the research's focus on the service sector for SMEs, aligning with the state's diverse SME landscape. A comparable study by Omar et al. (2015) also supported this suggestion by exploring the TOE model within the Kuching, Sarawak context, specifically in the homestay industry.

1.3 Problem Statement

The development of SMEs has long been a national priority for many governments, as SMEs contribute to productivity improvements that can enhance the future prosperity of the nation and drive wealth creation (Chew, 2024; Medalla & Mantaring, 2017). The advent of IoT, AI, 3D printing, robotics, quantum computing, and rapid advancements in mobile devices have created a wave of boundless opportunities. SMEs that adopt and utilize these technologies can significantly enhance their organisational performance (Chew, 2024). However, according to SME Corporation Malaysia (2020), 77% of SMEs had not progressed beyond the basic stage of digitalization in 2020, and only 53.9% had an online presence at that time (SME Corporation Malaysia, 2020). Malaysian SMEs lag behind global peers in productivity measures and technology adoption rates, as many are reluctant to transform due to insufficient financial backing or a lack of required skillsets among their workers. Additionally, many employers lack the technical know-how, leaving SMEs uncertain about how or where to begin digitalizing their operations (The Star, 2022).

Researching the service sector in Sarawak is crucial because it plays a significant role as the fourth-largest contributor to Malaysia's GDP, despite experiencing a modest growth rate of 1.2% in 2023 (DayakDaily Team, 2024). The sector represents 38.3% of the state's gross domestic product (GDP) and has experienced a growth rate of 5.4%, contributing an additional RM54.5 billion in value (Lihan, 2024). To maintain and improve this growth, it is essential to understand the dynamics within important sub-sectors such as wholesale and retail trade, food and beverage, accommodation, utilities, transportation and storage, and information and communication (Lihan, 2024). Conducting research in these

areas will yield valuable knowledge and help identify opportunities for enhancement in Sarawak.

Studies on SMEs are essential to the global economy as they significantly contribute to employment, innovation, and sustainable economic growth. However, many SMEs still face challenges in integrating technology with TOE factors, compounded by an increasing need to address performance-sustainability concerns (Pandya, 2012). While various studies have exhaustively explored the TOE framework and technology innovation within larger corporations, its application to SMEs remains relatively uncharted territory (Owa, Ojiabo, & Orokir, 2017). Therefore, it is essential to study topics relevant to TOE factors and technology adoption. The impact of technological adoption on business success is evident in studies that show how TOE factors complement each other (Shahadat, Argon, Pejman & Maria, 2023). According to Qerul et al. (2021), focused research in a specific area is crucial for better understanding the implications for the local market, as it allows for a more comprehensive study. Studies by Wasudawan and Chia (2024) and Omar et al. (2015) also propose studying the TOE framework within a specific area to lead to more accurate data collection. The TOE framework is crucial for understanding the technological factors within SMEs, including existing and new technologies (Omrani et al., 2022). Assessing innovations beyond technological impact helps determine the potential effect on SMEs and their competitive landscape (Bryan & Zuva, 2021). The framework includes organisational factors, which shape strategic decisions and innovation efforts in SMEs. These factors include internal employee linkages, communication dynamics, size, and slack resource allocation (Zhong & Hee, 2023). The framework also emphasizes environmental factors driving technological advancement, including industry structures, technology infrastructure,

and regulatory frameworks. SMEs, driven by intense competition, rely on robust technology infrastructure for innovation (Disu & Yo, 2018). Numerous studies also strongly support the TOE framework for understanding how firms adopt various technologies (Maroufkhani, Iranmanesh, & Ghobakhloo, 2022; Abbasi, Rahim, Wu, Iranmanesh, & Keong, 2022; Chatterjee, Nguyen, Ghosh, & Bhattacha, 2020; Abed, 2020).

SMEs' performance metrics are crucial for their success, often based on their adeptness in adopting competitive strategies, particularly in technology integration (Salah & Ayyash, 2024). Financial performance analysis helps investors and creditors assess historical and current performance, predict future performance, and inform management decisions about financial resource management (Barman, 2023). However, Ahinful, Boakye, and Bempah (2021), as well as Dedusenko and Wagenseil (2020), suggest that good financial performance is limited in SMEs due to their lack of skills to efficiently manage resources, making them more volatile and inefficient. Therefore, a study on the relationship between technology adoption and the financial performance of SMEs should be conducted to address this gap. Technology adoption is also anticipated to lower expenses, boost output without appreciable cost increases, and enhance the quality of services and goods produced (Thaha et al., 2022). However, technology adoption within SMEs varies considerably due to a complex interplay of attitudes, personalities, social influences, confidence levels, and contextual conditions that either facilitate or hinder change (Mataruka & Muzurura, 2023; Venkatesh, Thong, & Xu, 2012). At its core, technology adoption for SMEs encompasses the intricate process of embracing and integrating new technological solutions, requiring continuous learning and adaptation (Radicic & Petković, 2023). These elements shape SMEs' willingness to adopt technological innovations such as mobile payments, customer

relationship management, big data, and cloud computing (Khan, Khan, Bahadur, & Ali, 2021). Therefore, a study on the relationship between technology adoption and the non-financial performance of SMEs should be conducted to address this gap.

1.4 Research Questions

Based on the review of past literature and the background of the study, there are gaps in understanding how TOE factors relate to the performance of SMEs, specifically within Sarawak's service sector. Despite numerous studies on the influence of TOE factors on SMEs worldwide, a significant research gap exists when considering Sarawak's service sector in Malaysia. While existing literature explores the relationship between technology factors, organisational factors, and environmental factors with SMEs, comprehensive research within Sarawak's unique economic and cultural landscape is still lacking. The distinct challenges and opportunities in Sarawak differ greatly from those in other regions, with socio-economic factors, cultural dynamics, infrastructure, and the environment all shaping SME operations. Therefore, this study includes technology adoption as a mediator in the relationship between TOE factors and the performance of SMEs in the Sarawak service sector.

This study focused on the following research questions:

1. What is the relationship between technological factors and technology adoption of SMEs in Sarawak service sector?
2. What is the relationship between organisational factors and technology adoption of SMEs in Sarawak service sector?

3. What is the relationship between environmental factors and technology adoption of SMEs in Sarawak service sector?
4. What is the relationship between technology adoption and financial performance of SMEs in Sarawak service sector?
5. What is the relationship between technology adoption and non-financial performance of SMEs in Sarawak service sector?
6. What is the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the financial performance of SMEs in Sarawak service sector?
7. What is the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the non-financial performance of SMEs in Sarawak service sector?

1.5 Objectives of the Study

The general objective for this study is to investigate the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the performance of SMEs in Sarawak service sector.

Specific Objectives:

To be more specific, this study achieved the following specific objectives:

1. To investigate the relationship between technological factors and technology adoption of SMEs in Sarawak service sector.
2. To assess the relationship between organisational factors and technology adoption of SMEs in Sarawak service sector.

3. To examine the relationship between environmental factors and technology adoption of SMEs in Sarawak service sector.
4. To explore the relationship between technology adoption and financial performance of SMEs in Sarawak service sector.
5. To determine the relationship between technology adoption and non-financial performance of SMEs in Sarawak service sector.
6. To examine the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the financial performance of SMEs in Sarawak service sector.
7. To assess the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the non-financial performance of SMEs in Sarawak service sector.

Table 1.2: Summary of Research Questions and Objectives

Research Questions	***No.***	***Research Objectives***
To test the direct relationship between TOE factors and technology adoption.		
What is the relationship between technological factors and technology adoption of SMEs in Sarawak service sector?	1	To investigate the relationship between technological factors and technology adoption of SMEs in Sarawak service sector.
What is the relationship between organisational factors and technology adoption of SMEs in Sarawak service sector?	2	To assess the relationship between organisational factors and technology adoption of SMEs in Sarawak service sector.
What is the relationship between environmental factors and technology adoption of SMEs in Sarawak service sector?	3	To examine the relationship between environmental factors and technology adoption of SMEs in Sarawak service sector.
To test the direct relationship between performance of SMEs and technology adoption.		
What is the relationship between technology adoption and financial performance of SMEs in Sarawak service sector?	4	To explore the relationship between technology adoption and financial performance of SMEs in Sarawak service sector.
What is the relationship between technology adoption and non-financial performance of SMEs in Sarawak service sector?	5	To determine the relationship between technology adoption and non-financial performance of SMEs in Sarawak service sector.

Table 1.2: Summary of Research Questions and Objectives (continued)

To test the mediating effect of technology adoption on the relationship between TOE factors and performance of SMEs.		
What is the mediating effect of technology adoption on the relationship between TOE factors and the financial performance of SMEs in Sarawak service sector?	6	To examine the mediating effect of technology adoption on the relationship between TOE factors and the financial performance of SMEs in Sarawak service sector.
What is the mediating effect of technology adoption on the relationship between TOE factors and the non-financial performance of SMEs in Sarawak service sector?	7	To assess the mediating effect of technology adoption on the relationship between TOE factors and the non-financial performance of SMEs in Sarawak service sector.

1.6 Significance of the Study

This study contributes to sustainable development by providing insights into the relationship between technological-organisational-environmental (TOE) factors and technology adoption, examining whether technology adoption has a mediating effect on the relationship between TOE factors and the financial performance of SMEs in Sarawak's service sector, and whether technology adoption mediates the relationship between TOE factors and the non-financial performance of SMEs in Sarawak's service sector.

1.6.1 Theoretical Contribution

By employing the TOE framework as a foundation for this study, the theoretical contributions are extended to further understanding the relationship between technological-organisational-environmental (TOE) factors and technology adoption. Specifically, the study examines whether technology adoption mediates the relationship between TOE factors and the financial performance of SMEs in Sarawak's service sector, as well as whether it mediates the relationship between TOE factors and the non-financial performance of SMEs in the same sector. This research validates the TOE model in the context of technology adoption and SME performance.

Many businesses now track their performance using a combination of financial and non-financial criteria. Financial indicators alone are inadequate to present a complete picture of a company's situation. Managers who rely solely on financial performance indicators often have a limited perspective. In contrast, non-financial performance forms the core of a company's activities, defining and conveying its priorities to various stakeholder groups, such as managers, staff, and customers (Marie, Mohamed, & Amjad, 2024).

This study also contributes to academic literature by bridging gaps in understanding TOE factors and technology adoption. The findings reveal that technology adoption mediates the relationship between TOE factors and the performance of SMEs in both financial and non-financial aspects, as analyzed using SmartPLS 4.1. The extended conceptual framework adds value to academic knowledge by enabling multi-analyses, such as first- and second-order models, as well as reflective and formative measurement, for a more comprehensive understanding. This study combines academic insights with practical applications by further exploring the relationship between academia and practice, filling gaps in existing literature, and enhancing the understanding of SME performance. This research opens the door to further studies and academic discourse in the fields of technology adoption and SME performance.

1.6.2 Practical Contributions

For practical contributions, this study can serve as a guideline that adds to the knowledge base, complementing the academic contributions discussed earlier. It is particularly relevant for the state government of Sarawak, which has initiated digital initiatives. This work can also serve as a guideline for policymakers who want to better

understand technology adoption among SMEs in the service sector. It provides insights into the ways and elements necessary for developing strategies and support systems that will nurture and sustain SMEs. The results of this study offer actionable suggestions for SMEs regarding technology adoption. The recommendations in this study help both SMEs and other businesses make informed decisions about technology adoption, focusing on technological, organisational, and environmental factors that could lead to increased competitiveness and growth.

Additionally, identifying technology adoption as a mediator allows practitioners to understand the mediating effects of technology adoption on the relationship between technological, organisational, and environmental factors and the performance of SMEs in Sarawak's service sector. These implications add value for companies intending to adopt technology, with considerations for both the financial and non-financial performance of the company.

1.7 Scope of the Study

This study focuses on how technology adoption mediates the relationship between technological-organisational-environmental (TOE) factors and the performance of SMEs in the service sector in Sarawak. It also seeks to determine whether TOE factors have differing effects on the financial and non-financial performance of SMEs. The study conducted quantitative research by collecting primary data through a closed-ended questionnaire survey distributed according to an SMEs listing purchased from SME Corporation Malaysia. Secondary data, such as journal articles, official announcements, news from authorized departments, published data from reliable sources, and existing literature, were used to

support the findings. The study strictly adhered to ethical guidelines in data collection and analysis to ensure the validity of the study and to provide practical recommendations for SMEs, as well as contribute to academic knowledge. This report is organized into different sections, including an in-depth literature review, a description and implementation of the research methodology, and summaries and conclusions.

1.8 Organisation of the Study

This study consists of five chapters. Chapter 1 begins with an introduction that outlines the main focus of the study and discusses the research background. The chapter also identifies significant gaps and issues in the field, delineates the research questions and objectives that guided the study, and elucidates the potential significance of the research. Chapter 2 provides a review of relevant literature from previous studies on the TOE framework and the performance of firms. Chapter 3 explains the research design and methodology used in this study in detail. Chapter 4 presents the detailed findings and analyses, addressing the research questions and presenting the results. Finally, Chapter 5 discusses these results, draws conclusions, and suggests implications for the broader context.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter delves into how technology adoption has a mediating effect on technological-organisational-environmental factors and the performance of SMEs. It started by exploring the technology adoption via a DOI theory, then links the DOI theory with the TOE framework (as DOI theory served as a fundamental theory for TOE framework) to understand how technological factors, organisational factors, and environmental factors are collectively affect the technology adoption among SMEs. This study expanded the performance of SMEs into two broad categories such as financial and non-financial performance. A direct effect for TOE factors and technology adoption, as well as the mediating effect from technology adoption on the relationship between financial and non-financial performance of SMEs are discussed in this chapter. The chapter also intricately weaves together theoretical foundations, past research insights, and methodological recommendations, culminating in a comprehensive understanding for subsequent chapters to further explore.

2.2 SMEs of Service Sector in Malaysia

The COVID-19 pandemic has greatly disrupted global economies, necessitating businesses to quickly adapt to new circumstances. SMEs of service sector in Malaysia are facing exceptional difficulties, such as disrupted supply chains and shifts in consumer behaviour (Irawan, 2020). In order to overcome these challenges, numerous SMEs have expedited their efforts to undergo technology transformation with the aim of not only

surviving but also flourishing in the era following the pandemic (Irawan & Asfiah, 2022). Technology transformation entails the seamless incorporation of technologies across all facets of a business, resulting in a fundamental restructuring of operations and the provision of added value to customers. SMEs of service sector able to expand their market reach, optimise their operations, and enhance customer interaction through e-commerce platforms, digital payment systems, and cloud-based services (Irawan & Sifa, 2023). The services sector is the largest contributor to the economy, accounting for roughly 55% of GDP growth each year. It includes tourism, finance, and ICT. The tourism sub-sector generated RM75 billion in revenue in 2023, while the ICT services market was worth RM121.72 billion, according to various global databases. The Malaysian financial sub-sector is also stable. BNM's Financial Sector Blueprint 2022-2026 outlines efforts to promote market dynamism and support sustainable development goals, while maintaining a focus on its monetary and financial stability mandates (Bank Negara Malaysia, 2024). The Malaysian government's endorsement of digitalization initiatives and funding programmes has also incentivized SMEs to adopt digital technologies. Consequently, SMEs of service sector that have effectively executed digital transformation strategies are in a stronger position to compete in the increasingly digital worldwide marketplace (Subramaniam, 2024).

2.2.1 SMEs of Service Sector in Sarawak

Sarawak's economy is diverse, encompassing the service sector, manufacturing sector, mining and quarrying sector, agriculture sector, and construction sector (Voon & Lee, 2022). The service sector is particularly important in Sarawak, accounting for 38.3% of the state's GDP. Additionally, the service sector provides employment opportunities to 702,700 individuals across Sarawak, making up 56% of the state's total employed workforce. In terms

of economic performance, the service sector grew by 5.4%, contributing an added value of RM54.5 billion. Sub-sectors such as wholesale and retail trade, food and beverage, accommodation, utilities, transportation and storage, and information and communication all experienced growth, with increases of 6.5% and 6.3%, respectively (Lihan, 2024). However, the service sector faces several challenges. Key issues include low productivity growth, a shortage of skilled workforce, and weak internet connectivity in rural areas, which restrict the development of the service sector (Voon & Lee, 2022).

2.3 Technology Adoption (TA)

The foundational model for understanding technology adoption dates back to Rogers' work in 1962, known as the Diffusion of Innovations (DOI). This model outlines the technology adoption life cycle, delineating five distinct adopter categories. Firstly, *innovators* refer to those who are enthusiastic about seeking and advocating for new advancements; this includes those who are eager to try and adopt new products (Rogers, 2022). For example, the innovators refer to those SMEs that are willing to take risks and have more financial flexibility. Secondly, the *early adopters* function as trendsetters comfortable with risk-taking to adopt new technology (Rogers, 2022). For example, early adopters refer to those SMEs that watch for new innovations in the market but are notably more selective than innovators when making decisions. Thirdly, the *Early Majority* shows interest in technology but requires evidence of its effectiveness (Rogers, 2022). For example, the early majority refers to SMEs that are more conservative and risk-averse when it comes to financial investment decisions and look towards influencers and early adopters for feedback. Fourth, the *late majority* seeks data-driven reasons for adopting technology (Rogers, 2022). For example, the late majority refers to SMEs that catch on to technology

adoption well after the average SMEs do, usually due to a high level of scepticism about the benefits of a new product or service and having less financial flexibility than earlier adopters. Lastly, the *laggards* exhibit scepticism and reluctance to engage with new technology, often quick to abandon tools that don't offer immediate benefits (Rogers, 2022). This study defined laggards as SMEs that resist change and do not yield to the influence of opinion leaders. They valued the dependability of existing technology and may lack the financial resources to take risks in technology adoption. This model demonstrates a curve representing technology adoption, reflecting varied mindsets and behaviours. It provides a comprehensive depiction of the wide array of reactions shown by individuals and businesses when they encounter and adopt new technological innovations (Rogers, 2022).

The concept of technology adoption in this study encompasses the intention of SMEs to adopt and use technology (Makame et al., 2023). Given this definition, the relationship between technological-organisational-environmental (TOE) factors and the performance of SMEs can be viewed through the lens of technology adoption. Technology adoption has significantly reshaped business operations, influencing human behaviors, preferences, and spending habits. This has a favorable impact on management strategies, including communication, information access, data management, decision-making, and knowledge management, as highlighted by Adeosun et al. (2008). For firms, technology investment can be a strategic asset that enhances competition and promotion. Businesses benefit from reduced costs and increased teamwork through technology adoption. Technology adoption gives businesses a competitive edge by enhancing customer service, performance management, and information quality (Thaha, Maulina, Muftiadi, & Alexandri, 2022). To stay competitive, many businesses commonly use technology as a strategic tool to reliably

integrate and process data, thereby creating new service products. Understanding technology adoption in the Sarawak context is particularly useful, as the government is actively promoting technology adoption across all economic sectors to foster a digitally driven economy that increases productivity, efficiency, and higher-skilled employment opportunities (Lihan, 2023). Technology adoption is seen as a crucial mediator in the relationship between TOE factors and the performance of SMEs.

2.4 Diffusion of Innovation (DOI)

The DOI theory, as articulated by Rogers (2003), encapsulates innovations as not just novel ideas but also customs or objects perceived as ground-breaking by individuals or adopting groups. Rogers developed the DOI theory in 1962, and it served as a framework that outlines the complex process of embracing and disseminating new products, ideas, or technologies across diverse populations (Rogers, 2003). This evolutionary process unfolds over time, traversing distinct stages and engaging various types of adopters, as illuminated in the works of Figenbaum and Weiner (2013). Rogers (2022) emphasised the pivotal stages of innovation adoption crucial for achieving diffusion. These stages encompass a spectrum, starting with the awareness of the necessity for the innovation, the subsequent decision-making process to adopt or reject it, the initial experimentation to gauge its utility, and the sustained usage that solidifies its integration into practice (Rogers, 2022).

In understanding the dynamics of innovation adoption, Rogers (2022) introduces five key factors that wield differential influences across the five adopter categories. Firstly, relative advantage stands as a critical determinant, assessing the perceived superiority of the innovation over its predecessors. Secondly, compatibility serves as a metric measuring the

alignment of an innovation's values, experiences, and needs with the potential adopters' existing framework. Thirdly, complexity serves as an indicator of the level of difficulty involved in understanding and effectively utilising innovation. Rogers, Singhal, and Quinlan (2014) highlight tributability as the ability to experiment with or test an innovation before making a complete commitment, which in turn influences its adoption rate. Lastly, observability emerges as a crucial factor in determining whether an innovation provides visible and tangible results, thereby significantly influencing its acceptance and adoption within a given population. While these factors are instrumental in shaping the adoption process, their relative significance varies across different adopter categories. Understanding this nuanced interplay of factors across varied adoption segments is essential for comprehending the trajectory of innovation diffusion within diverse societal and organisational contexts (Rogers, 2022).

One of the earliest theories used to study technology adoption is DOI (Rogers, 1983). DOI theory has been validated through empirical research on e-wallet, IoT, and internet adoption (Muliadi & Usman, 2024; Mphale, Gorenjena & Nojila, 2024; Çakıroğlu et al., 2022). While the DOI theory remains a foundational framework for understanding the adoption and spread of innovations, several scholars, including Ho (2021), Abdinagoro, Manurung, So, and Abdinagoro (2020), MacVaugh, and Schiavone (2010), have articulated valid concerns regarding its limitations. Critics argued that the DOI theory fails to consider the complex interplay of technological, social, and cognitive factors, limiting its applicability to contemporary innovation. They also highlighted the importance of understanding organisational structures, strategies, and cultures in innovation implementation. By neglecting this organisational aspect, the DOI framework offers an incomplete perspective

on how innovations permeate and take root within different organisational settings (Ho, 2021; Abdinagoro et al., 2020; MacVaugh & Schiavone, 2010). The highlighted limitations underscore the pressing need for further refinement and development of the DOI theory. Researchers and scholars are increasingly recognising the necessity of expanding the theory's scope to encompass a broader array of dynamics. As a result, Ho (2021), Abdinagoro et al. (2020), and MacVaugh and Schiavone (2010) call for a better theoretical framework that can handle the complexity that comes from different situations and organisational factors. This would help us learn more about how innovations spread.

In a parallel critique, Azadegan and Teich (2010) draw attention to another facet: the DOI theory overlooks the profound influence of environmental factors within different industries. They emphasize the significance of these factors in shaping organisational strategies and responses to innovation. The theory's oversight of this aspect within diverse industry landscapes suggests a need to expand the theoretical lens beyond the DOI framework's initial boundaries. Consequently, these discussions and critiques have sparked an evolution in theoretical frameworks. Therefore, an expanded model, named the Technology-Organisation-Environment (TOE) framework, was initially developed by Tornatzky and Fleischer (1990), based on the foundational principles of the DOI theory.

2.5 Technology-Organisation-Environment (TOE) Framework

The choice of the TOE framework, as formulated by Tornatzky and Fleischer in 1990, served as the cornerstone of this study. This framework stands out for its distinct emphasis on organisational factors, diverging from the predominant focus on individual-level aspects. This pivotal choice enables a more nuanced exploration of the factors influencing technology

adoption among firms. Tornatzky and Fleischer (1990) introduced the TOE Framework with the specific intention of holistically evaluating the process of technology adoption. It spans the entire trajectory of technological innovation, commencing from its inception by engineers and extending to the entrepreneurial phase, where users within organisations adopt and implement these innovations (Dwivedi, Wade, & Schneberger, 2012).

The framework encapsulates a comprehensive understanding of the multi-layered processes involved in the assimilation of technological advancements within a firm's operational landscape (Tornatzky, Fleischer, & Chakrabarti, 1990). According to insights from Dwivedi et al. (2012), the adoption of technological innovations encompasses three distinct stages. The initial stage involves the initiation phase, centered around the collection and evaluation of information about technological innovations. Following this is the decision-making phase, where choices regarding the selection and utilization of specific technologies are made. Finally, the implementation phase marks the introduction of the chosen innovation into the organisational structure and operational workflows (Scupola, 2003).

The TOE framework stands as a comprehensive model elucidating the intricate process of technology adoption at the SME level, as highlighted by Qalati et al. (2021). This theoretical framework articulates three overarching factors that significantly influence the various stages of initiation, adoption, and implementation within SMEs: organisational factors, technological factors, and environmental factors (Habiboglu, Oztek, & Pirtini, 2020). The technological factors facet encapsulates both internal and external technologies closely associated with SME operations. It extends beyond mere utilization to encompass the

transformative potential that technology holds for SMEs, including the possibilities of adapting, developing, or integrating new technological solutions into their workflows and systems (Kwabena, Mei, Ghumro, Li, & Erusalkina, 2021). Conversely, the organisational factors facet within the TOE framework encompasses a multifaceted spectrum, comprising various descriptive measures, intrinsic features, and the resources available to SMEs. This segment delves into the core elements that define and shape the organisational structure, strategies, and capacities, playing a pivotal role in determining the trajectory of technological adoption within SMEs (Kwabena et al., 2021). Moving beyond the organisational factors, the environmental factors within the framework represent the external landscape in which SMEs operate. This facet incorporates the external arena where SMEs conduct their business activities, encompassing their capabilities to access external resources, engage in collaborative ventures with other entities, and navigate interactions with governing bodies or other firms (Zhang & Xiao, 2017).

By elucidating these three distinct dimensions (technological factors, organisational factors, and environmental factors) within the TOE framework, researchers gain a comprehensive lens to analyze and understand the complex interplay of factors influencing technological innovation adoption within SMEs (Qalati et al., 2021). This comprehensive model offers a holistic view, enabling a deeper understanding of how these multifaceted dimensions intertwine to drive or hinder the uptake of technological innovations in the SME landscape. Therefore, by leveraging the TOE Framework, this study aims to delve deeper into the complex interplay of technological factors, organisational factors, and environmental factors that collectively influence the adoption and implementation of technology within SMEs (Habiboglu et al., 2020). This strategic framework facilitates a

comprehensive analysis, shedding light on the multifaceted processes that underlie technology adoption dynamics in SMEs.

2.5.1 Technological Factors (T)

According to Dadhich and Hiran (2022) and Baker (2012), a firm's technological factors are defined as the array of technologies already integrated into its operations and those still available in the marketplace. Existing technologies serve as the groundwork, setting the scope and pace for potential technological advancements (Omrani et al., 2022; Tornatzky & Fleischer, 1990; Tornatzky & Klein, 1982). Simultaneously, market-available innovations act as benchmarks, delineating the boundaries of possibility and presenting pathways for adaptation and evolution. Industries facing gradual or synthetic technological changes can adopt them more slowly, whereas those confronting sudden innovations need to make quick decisions to stay competitive (Qalati et al., 2021; Baker, 2012; Tornatzky et al., 1990). Evaluating innovations extends beyond their technological impact to consider whether they enhance existing competencies or render them obsolete (Zhong & Hee, 2023). Competence-enhancing innovations build on current expertise, while competence-destroying ones prompt significant industry shifts (Habiboglu et al., 2020). Assessing the potential organisational changes brought about by new innovations is crucial, as some may lead to profound transformations, while others result in more incremental shifts within the firm and its competitive landscape (Bryan & Zuva, 2021). Therefore, this study evaluated and quantified the intricate relationship between technological factors and technology adoption (Qalati et al., 2021).

Delving into technological factors, this examination encompasses both the internal and external technological landscape of SMEs, along with the potential technologies that could influence their operational frameworks. This approach resonates with insights from Zhang and Ling (2015), who endorse a technology-driven framework articulated by the Massachusetts Institute of Technology (MIT) and conceived by Michael Scott Morton. According to this framework, technological factors are influenced by elements such as strategy, organisational structure, management processes, individual roles, and vice versa, indicating a reciprocal relationship between technology and these pivotal elements (Zhang & Ling, 2015). Moreover, ample evidence supports the impact of technology on performance metrics across various studies conducted at both individual and organisational levels. For instance, Tornatzky et al.'s (1990) exploration of the interaction between company infrastructure and performance revealed a positive correlation between technology and firm performance. Similarly, findings from Dutot and Bergeron (2018) highlight the positive association between technological innovations and a firm's performance within the SME landscape. Additionally, Bryan and Zuva (2021) affirmed the significant impact of technology on an organisation's overall performance. Based on Habiboglu et al. (2020), their study applying the TOE framework through content analysis identified the most referenced sub-dimensions within the technological category from 88 past studies. The most-mentioned sub-dimensions—relative advantage (12.5%), compatibility (12.5%), and complexity (11.4%)—stand out as key indicators, demonstrating their importance for understanding how technology affects the performance of small and medium-sized businesses. Therefore, this study used these three sub-dimensions to form the latent variable (independent variable) of technological factors.

2.5.1.1 Relative Advantage (RA)

According to Rogers (1983), relative advantage is a crucial concept that denotes the degree to which a new product or service outperforms its competitors and significantly impacts the rate and scope of its adoption. In the context of small and medium-sized enterprises (SMEs), relative advantage becomes a critical aspect of the decision-making process, guiding the adoption of new technologies. A study by Ahmad, Ahmad, and Bakar (2018) underscored the importance of relative advantage, defining it as SMEs' belief in the superiority of technological adoption over alternative options. The TOE framework incorporates relative advantage, representing the anticipated benefits of technology adoption or advancement for SMEs (Abbasi et al., 2022).

Nguyen et al. (2022) offer a more nuanced perspective, suggesting that relative advantage in the context of technology refers to the idea that SMEs can benefit from technology when it enables them to develop new business models, improve operational efficiency, enhance sales effectiveness, and target specific customer segments. This multifaceted view of relative advantage underscores its intrinsic value in driving technological adoption within SMEs. The perceived benefits, as encapsulated by relative advantage, have a substantial impact on SMEs' decisions regarding technology integration (Mustafa, Saleem, & Dost, 2021). Understanding and leveraging the benefits associated with relative advantage is crucial for encouraging SMEs to adopt new technologies, highlighting the importance of this concept in the process of technology adoption and transformation within SMEs.

2.5.1.2 Compatibility (CP)

In this study, compatibility, as defined by Rogers (1983), embodies the seamless integration of two or more elements capable of functioning together harmoniously without conflict. Technology adoption rates can experience significant delays if the technology does not align with prevailing values. Compatibility encapsulates the extent to which a technological innovation or advancement aligns with the existing practices and systems within SMEs (Zhong & Hee, 2023). A study by Shanmugam and Shanmugam (2021) highlighted the pivotal role of compatibility, indicating that the rate and ease of technology adoption within an organisation are accelerated when innovation seamlessly aligns with the present systems and practices. Moreover, compatibility attributes profoundly influence the decision-making process surrounding the adoption of new technology or innovation. Another study by Mndzebele (2013) emphasized that technological integration necessitates a foundational shift in an organisation's practices and operations. The degree of compatibility significantly impacts this transformation, indicating that a technology's alignment with existing infrastructure plays a crucial role in maximizing the benefits derived from its utilization (Yoon, Lim, & Park, 2020).

In practical terms, technology that aligns with existing systems not only aids in the absorption of information but also facilitates its seamless integration, enhancing the enterprise's structural efficiency. Nguyen et al. (2022) emphasized the significance of compatibility in SMEs, stating that technologies that align with organisational values and require minimal adjustment have a higher likelihood of adoption. For this study, compatibility is not just about technological features; it also pertains to how easily these features can be incorporated into current processes to improve operational efficiency or even

help create new business models, rather than merely replacing existing methods (Alsetoohy, Ayoun, Arous, Megahed, & Nabil, 2019). Extensive research echoes the strong correlation between compatibility, innovation adoption, and the effective use of new technologies (Hiran & Henten, 2020). This underlines the pivotal role that compatibility plays in the adoption and successful utilization of technology within SMEs, illustrating its profound impact on shaping technological adoption strategies and outcomes.

2.5.1.3 Complexity (CX)

In this study, complexity refers to the level of difficulty an innovation or new technology poses for SMEs. Typically, SMEs prefer technologies that offer ease of use, as most are disinclined to invest extensive time and resources in learning intricate innovations (Disu & Yo, 2018). According to Rogers (1983), complexity is accurately characterized as the extent to which SMEs perceive an innovation as difficult to understand and apply. This perception of complexity plays a pivotal role in the decision-making process for SMEs when considering technology adoption, serving as a critical factor that shapes awareness and influences strategic choices. Various studies by Andersen (2018), Hameed and Arachchilage (2017), Stieninger, Nedbal, Wetzlinger, Wagner, & Erskine (2017), Borhani (2016), and Shi and Yan (2016) underscore the significance of complexity in technology adoption decisions. They highlight that a lack of understanding or high complexity can lead to suboptimal decision-making processes, potentially hindering future success.

However, contrasting perspectives emerge in the research landscape. A study by Poorangi and Khin (2013) suggested that complexity might not wield a substantial influence on adoption rates. Their viewpoint emphasizes the pivotal role of leadership in encouraging

technology adoption by providing adequate training and support to employees. Similarly, Naicker and Merwe's (2017) study investigating mobile technology adoption indicates that complexity might not significantly impact the adoption of such technologies. Contrarily, Liang and Lu (2012) suggest that technology applications should prioritize creating convenience for users, aiming to alleviate difficulties in usage. Their study underscores the importance of understanding user concerns and facilitating creators in improving software development processes. This multifaceted landscape surrounding the impact of complexity in technology adoption within SMEs showcases diverse viewpoints and varied interpretations of its influence. While SMEs' intentions to adopt technology heavily depend on complexity, there is a general consensus that SMEs should ideally maintain a manageable level of complexity. Excessive complexity can become a significant barrier to adoption, emphasizing the delicate balance required to ensure that complexity doesn’t deter SMEs from adopting new technologies.

2.5.2 Organisational Factors (O)

The organisational factors in the TOE framework refer to a firm's characteristics and resources, including internal linking structures among employees, communication processes within the firm, its size, and the allocation of slack resources. These factors significantly influence adoption and implementation decisions (Zhong & Hee, 2023; Baker, 2012). Additionally, organisational factors play a vital role in organic and decentralized structures, emphasizing teams, fluid employee responsibilities, and lateral communication, which are linked to adoption. In contrast, mechanistic structures, with formal reporting relationships and centralized decision-making, may be more suitable for implementation (Nguyen et al., 2022; Baker, 2012). Communication processes led by top management can foster innovation

by creating an environment conducive to change and supporting innovations that align with the firm's mission and vision (Nguyen et al., 2022; Nguyen & Petersen, 2017). While slack resources are often associated with promoting adoption, their absence doesn't preclude innovation; they are considered beneficial but not mandatory (Zhong & Hee, 2023; Maduku et al., 2016). Similarly, the link between the size of an organisation and its ability to innovate is still not clear-cut. Size alone may not be the deciding factor, so specific organisational variables must be examined in more detail than just size (Nguyen et al., 2022; Jilani et al., 2022).

The organisational factors within a company embody its capacity to efficiently execute operational tasks and foster internal robustness. An effective organisational setup facilitates several key aspects beneficial to SMEs, including the ability to standardize processes, ensure operational flexibility, hone technological specialization, and formalize workflows (Dadhich & Hiran, 2022). These constructs not only enhance operational efficiency but also lay the groundwork for cultivating intelligent and adept human resources within SMEs (Sartal, Bellas, Mej, & Garc, 2020). Progressive organisational methods complement the acquisition of skilled human resources, which play a pivotal role in steering technological advancements within SMEs. Employees are more likely to embrace transitions when the administrative environment fosters high morale and encourages proactive behavior, thereby enhancing SMEs' competencies and ensuring long-term sustainability (Dadhich & Hiran, 2022). Drawing from the insights of Habiboglu et al. (2020), numerous sub-dimensions within organisational factors have emerged from past studies. Notably, firm size and top management support constitute the most referenced sub-dimensions, accounting for 17.6% each, while financial resources rank at 2.4%, among others. Habiboglu et al. (2020)

suggest that these highly referenced sub-dimensions, such as firm size, top management support, and financial resources, are suitable for use in identifying the latent variable (independent variable) of organisational factors in this study. The study's exclusive focus on the service sector diminishes the usefulness of firm scope as an indicator.

2.5.2.1 Firm Size (FS)

Preliminary studies have illuminated the substantial impact of firm size on the adoption of technology within SMEs. Larger-sized SMEs typically possess more abundant resources, affording them the capacity to experiment with new innovations and absorb the risks and costs associated with technology implementation (Nguyen et al., 2022; Wang, Wang, & Yang, 2010). A study by Baker (2012) reinforces this notion, asserting that companies with larger firm sizes are inherently more predisposed to technology adoption due to their operational flexibility and willingness to undertake greater risks (Jilani et al., 2022). Conversely, smaller-sized SMEs, constrained by limited resources, often exhibit higher vulnerability to external contextual changes and tend to adopt a more short-term or passive stance towards technological innovations (Nguyen et al., 2022; Riemenschneider, Harrison, & Mykytyn, 2003).

As firm size in SMEs increases, there is a prevailing belief that their capacity to handle risks and reap benefits also develops concurrently. Extensive prior research consistently identifies firm size as a pivotal factor influencing technology adoption (Chittipaka, Kumar, Sivarajah, Bowden, & Baral, 2023; Alshamaila et al., 2013; Makena, 2013; Low, Chen, & Wu, 2011; Tornatzky & Klein, 1982). Consequently, larger-sized SMEs exhibit a heightened interest in embracing new and advanced technologies compared to their

smaller counterparts (Chittipaka et al., 2023; Senyo, Effah, & Addae, 2016). Building on this knowledge, past studies have shown that larger SMEs are more likely to be ready for and willing to adopt new technologies, and they are better equipped to handle risks than smaller SMEs (Chittipaka et al., 2023; Zhu, Luo, Wang, & Li, 2011; Pan & Jang, 2008). Thus, firm size proves to be a strong and reliable indicator for the latent variable in this study, serving as a key factor that influences SMEs' willingness and ability to adopt new technologies.

2.5.2.2 Top Management Support (TS)

In this study, top management support encompasses the pivotal role of decision-makers who wield significant influence over technological adoption within SMEs. It goes beyond mere acknowledgment to include a profound understanding and acceptance of the technological capabilities offered by innovations (Maroufkhani et al., 2023). These decision-makers—such as SME owners, directors, executives, and managers—play a decisive role in steering the trajectory of technological adoption within the organisation. Top management support is crucial for SMEs' acceptance and successful implementation of new technologies (Zhong & Hee, 2023; Maduku et al., 2016). Many top managers in SMEs recognize that the strategic integration of technology not only introduces innovation but also fosters a positive environment, effectively mobilizes resources, and provides active support for operational processes (Abbasi et al., 2022).

For SMEs, the major decision to adopt new technology should be a deliberative process, carefully weighing the advantages and disadvantages. Assessing whether a new technology aligns seamlessly with existing systems and culture within SMEs is crucial.

When a new technological adoption harmonizes with the SME's pre-existing systems and culture, it can substantially augment the value proposition for the SME, leading to enhanced operational efficiency and competitiveness (Zhong & Hee, 2023). Thus, the impact of top management support is significant in influencing and guiding the adoption of technology within SMEs, playing a pivotal role in aligning innovations with the existing operational fabric of these entities.

2.5.2.3 Financial Resources (FR)

Lack of financial resources remains a prevalent challenge among SMEs, often attributed to inadequate organisational governance, which, in turn, hampers effective technological adoption (Jere & Ngidi, 2020; Djatikusumo, 2014). A study by Mpofu, Milne, and Watkins-Mathys (2013) conducted in South Africa revealed that a significant number of SMEs identify financial constraints as the primary obstacle to adopting new technologies. Existing literature on technology adoption consistently underscores the pivotal role of financial resources (Mujahed, Ahmed, & Samikon, 2022). The availability of financial backing emerges as a critical determinant in shaping the likelihood of embracing new technologies within SMEs (Nguyen & Petersen, 2017). Therefore, within the context of this study, financial resources encompass the monetary assets required by SMEs. Notably, allocating a higher monetary investment towards initiating and sustaining technological changes can significantly contribute to building a competitive edge for SMEs within the market over an extended period (Kumar & Krishnamoorthy, 2020; Maroufkhani, Wan Ismail, & Ghobakhloo, 2020). Indeed, the adoption of technology in SMEs hinges heavily on the availability and allocation of financial resources. As emphasized by Chittipaka et al. (2023), financial resources play a pivotal role in facilitating technological adoption among SMEs.

This underscores the intrinsic link between financial backing and the ability of SMEs to effectively integrate and leverage technology, highlighting the substantial influence of financial resources on the adoption of technology within SMEs.

The costs of investing in technologies impact the decision-making process for owners and managers within SMEs, primarily due to the operational constraints imposed by limited resources. Studies by Siagian, Riesmiyantiningtias, and Amalia (2022) and Chong and Chan (2012) corroborate the significance of cost in shaping the adoption of new technologies within SMEs. Technology adoption is defined as the use of technologies that are cost-effective, help small businesses lower their costs, make it easier for new businesses to start up, and require little technical knowledge (Siagian et al., 2022; Derham, Cragg, & Morrish, 2011). Studies by Alshamaila et al. (2013) and Kumar and Krishnamoorthy (2020) emphasize the paramount importance of cost considerations in technology adoption processes, underscoring the weight of financial implications in these decisions. Adherence to cost-effective solutions not only facilitates a reduction in operational expenditure but also plays a crucial role in streamlining processes and ensuring a smoother transition to new technological paradigms (Maduku, Mpinganjira, & Duh, 2016). Therefore, having stable financial resources will reduce the burden on SMEs when adopting technologies.

2.5.3 Environment Factors (E)

The environmental factors within the technology landscape encapsulate the intricate interplay of industry structures, technology infrastructure, and regulatory frameworks, all of which exert a profound influence on the direction and pace of technological progress (Baker, 2012; Tornatzky & Fleischer, 1990). Notably, heightened competition within industries

serves as a catalyst, propelling firms toward innovative endeavors, as evidenced by the influence of dominant players within value chains, which drive collaborative innovation practices (Zhong & Hee, 2023; Baker, 2012; Tornatzky & Fleischer, 1990). The strength of technology infrastructure is fundamental to enabling technological progress. The availability of skilled workers and easy access to technology services foster innovation, especially when cost is a critical factor (Zhong & Hee, 2023; Jia, Guo, & Barnes, 2017; Baker, 2012; Tornatzky & Fleischer, 1990). However, the regulatory landscape can have both positive and negative effects. While governmental mandates for innovation, such as environmental compliance, can foster innovation, strict regulations, particularly in industries requiring extensive testing or patenting, can create significant barriers (Baker, 2012; Tornatzky & Fleischer, 1990). Recognizing the pivotal role of environmental factors is paramount, as they not only shape but also challenge the innovation trajectory of firms, presenting a complex mix of constraints and opportunities crucial for navigating technological evolution (Disu & Yo, 2018).

The environmental factors within which SMEs operate form a complex amalgamation of various elements that significantly influence their technological decisions. These factors encompass a range of influences, from industry structural dynamics to regulations governing technological implementation and the landscape of service providers (Baker, 2012). For SMEs, however, the environmental domain extends beyond these parameters, including intricate market dynamics, competitive forces, government policies, and external pressures that collectively influence the rationale and timing of their technology adoption decisions (Ji & Liang, 2016; Oliveira & Martins, 2011). Extensive research underscores the paramount importance of environmental factors in determining the

trajectory of technology implementation within SMEs. These environmental considerations serve as critical determinants that contextualize and shape the adoption of technology (Muhamad et al., 2021; Sallehudin, Aman, Razak, Ismail, Fadzil, & Baker, 2019; Alshamaila & Papagiannidis, 2013; Lin, 2013). A study by Muhamad, Mohamad, and Nor (2021) notably highlights the crucial role that environmental elements play in shaping and directing the technological landscape for SMEs, emphasizing their significance in the decision-making process. A comprehensive analysis by Habiboglu et al. (2020) sheds light on the salient sub-dimensions prevalent within the environmental category, as indicated by past studies. Among these dimensions, competitive pressure emerges as a significant influencer, commanding attention at 16.7%. Similarly, customer pressure (2.6%) and government support (1.3%) are also crucial factors that influence the technological choices of SMEs in their working environment. In Sarawak, these sub-dimensions—competitive pressure, customer pressure, and government support—serve as important indicators for small businesses in their working environment. Their prominence and alignment with the regional context solidify their relevance in shaping and informing technology adoption strategies among SMEs in Sarawak.

2.5.3.1 Competitive Pressure (CPP)

Competitor pressure is a compelling force within industries, characterized by the influence and impact exerted by other companies operating within the same sphere (Seraj, Fazal, & Alshebami, 2022). In today's fast-paced and fiercely competitive business landscape, SMEs often find themselves amid escalating competition, prompting them to seek novel strategies, resources, and solutions in a quest to secure a competitive edge through innovation. Mounting competitive pressure serves as a significant predictor of innovation

adoption among SMEs. The intensifying competitive landscape encourages SMEs to invest in innovative solutions to boost operational efficiencies, reduce costs, improve bidirectional communication channels, and enable seamless information access for both customers and partners (Nguyen et al., 2022).

SMEs perceive escalating competition as necessitating the augmentation of their business models to maintain market relevance and resilience, driving their proactive stance towards innovation adoption (Nguyen et al., 2022). Furthermore, competition serves as a driving force, compelling SMEs to embrace technological innovations. In an environment where stringent quality standards and heightened competitiveness prevail, technological advancements emerge as imperative tools for SMEs striving to elevate their standards and maintain a competitive edge (Hiran & Henten, 2020). The dynamics of competitive pressure play a crucial role in shaping the innovation landscape for SMEs. As the competitive environment intensifies, SMEs must not only respond to rivalry but also leverage technological innovations as strategic imperatives to strengthen their market positions, enhance operational efficiencies, and proactively adapt to the changing industry landscape (Qalati et al., 2021).

2.5.3.2 Customer Pressure (CS)

The influence of customer pressure emerges as a pivotal factor significantly impacting the adoption of new technologies within organisations, as corroborated by several seminal studies (Elnadi, 2022; Jaman, Damit, Ishak, Ason, & Tamin, 2020; Rahman, El-Gohary, Abbas, Khalil, Altheeb, & Sultan, 2020). The imperatives of meeting and surpassing customer expectations drive organisations to embrace innovative technologies that facilitate

seamless interactions and engagement with their clientele (Rahman et al., 2020). The evolution of technology adoption in the realm of customer communication stands as a testament to this trend. Organisations, especially SMEs, are compelled to utilise diverse technological tools, such as social media platforms, messaging apps like WhatsApp, robust websites, and more, to cater to the evolving demands of their customer base (Rahman et al., 2020).

A study from Elnadi (2022) observed that the evolving trend of customers, a customer segment committed to researching and engaging with SMEs' products and services through various online platforms, coincides with this paradigm shift in communication strategies. This shifting customer behaviour prompts SMEs to align their communication strategies with the preferences of these tech-savvy consumers. This necessitates the technology adoption and adept utilisation of various digital media and communication channels to effectively engage and serve their clientele (Qalati et al., 2021). Therefore, customers' mounting pressure acts as a significant catalyst, compelling SMEs to embrace and integrate technology solutions into their operations. Increased customer pressure and the heightened likelihood of SMEs adopting technology demonstrate the pivotal role of evolving customer demands in driving technological transformations within the SME landscape. Customers' increasing demand for technological interfaces and interactions propels SMEs to adapt and integrate technological innovations to meet these evolving needs and gain a competitive edge in the market (Qalati et al., 2021).

2.5.3.3 Government Support (GS)

Government support plays a pivotal role in fostering a conducive environment for SMEs to embark on innovative endeavors. This support encompasses a spectrum of initiatives, ranging from technical assistance and specialised training courses to funding allocations earmarked for innovation development, all of which collectively bolster SMEs' readiness to adopt and integrate new technologies (Nguyen et al., 2022). Numerous studies underscore the critical importance of government-backed support in catalysing the uptake of new technologies within the SME landscape. A study from El-Haddadeh, Osmani, Hindi, and Fadlalla (2021) posit that the comprehension of the benefits stemming from technology adoption among top-tier managers significantly influences their willingness to embrace and champion technological transformations within their organisations. This underscores the profound impact of aligning managerial understanding with the advantages of technology adoption, thus instigating a culture of innovation within SMEs.

Moreover, Abdullahi, Husin, Baharudin, and Abdullah (2022) delved into a comprehensive technology adoption model among service-based enterprises, unveiling a robust correlation between government support initiatives and the rate of technology adoption. The provision of various governmental aids, such as training assistance programmes, tax subsidies, and data subscription subsidies, significantly influenced SMEs' technology adoption propensities, elucidating this relationship. Governments' financial and non-financial support significantly increases the probability of SMEs adopting and incorporating technological innovations into their operations (Nguyen et al., 2022). In essence, the instrumental role played by government support mechanisms cannot be overstated. By offering an array of supportive measures, governments effectively cultivate

an environment conducive to technological exploration and innovation adoption within the SME sector, ultimately empowering these enterprises to stride confidently into the realm of technological advancements.

2.6 Performance of SMEs

In the global landscape of business, SMEs exhibit a fascinating diversity in classification across different countries. Definitions of SMEs, as indicated by Tock and Baharun (2013), vary significantly worldwide, encompassing a spectrum of parameters such as size, annual revenues, workforce numbers, asset valuations, market capitalization, legal structures, capital investments, and ownership configurations. This wide-ranging characterization underscores the adaptability and multifaceted nature of SMEs, transcending geographical boundaries and spanning diverse business domains, whether situated in developed, developing, or underdeveloped nations (Ahmad et al., 2020). The role of SMEs in Malaysia is paramount, contributing significantly to the nation's economic fabric. These enterprises act as linchpins in fostering technological progress and innovation, ushering in an array of novel products and services that not only bolster larger corporations but also engender a more robust competitive landscape within markets or industries. This dynamism significantly enriches the economic landscape of the country, as observed by insights from CFI Education Inc. (2023).

Within the specific context of Sarawak, SMEs serve as instrumental agents propelling the state's economic momentum, creating an array of employment opportunities, facilitating robust import-export networks, and catalyzing a range of productive economic endeavors. Hence, this study endeavors to delve into the intricate dynamics of SMEs within

Sarawak's vibrant service sector. As underscored by Lee and Voon (2022), the service sector represents the cornerstone of the Sarawak economy, constituting over 56% of the state's employment spectrum. This sector encapsulates a diverse array of segments, including wholesale and retail, tourism, and education, among others (Lee & Voon, 2022). SMEs' performance metrics serve as a pivotal gauge for their success, often contingent on their adeptness in adopting competitive strategies, particularly in technology integration (Ahmad & Jamil, 2000). SMEs that exhibit proactive stances in embracing and integrating technology at an early juncture typically witness more favorable outcomes overall. Assessing the performance of SMEs requires a comprehensive evaluation, encompassing a broad range of financial and non-financial performance indicators. A holistic evaluation is imperative to capture SMEs' adaptability within dynamic business environments, as underscored by insights from Rosli and Sidek (2013).

Numerous studies examining the impacts of technological adoption on business success have shown how technological, organisational, and environmental developments complement each other (Song, Chen, & Gu, 2023; Chairoel, Widyarto, & Pujani, 2015; Lucia-Palacios, Bordonaba-Juste, PoloRedondo, & Grünhagen, 2014). The TOE literature measures several performance metrics, including financial and non-financial impacts. The studies found that increased organisational performance, productivity, and market access are results of SMEs' effective use of technology. Furthermore, the outcomes demonstrated that SMEs that can gain greater market share, profits, and sales over rivals are examples of organisational success (Song et al., 2023; Chairoel et al., 2015; Lucia-Palacios et al., 2014).

2.6.1 Financial Performance (FP)

Financial performance refers to the analysis of the components of financial statements or information to gain a comprehensive understanding of a company's position and performance. This analysis allows investors and creditors to assess both historical and current performance, evaluate financial standing, and make predictions about future performance (Gowsalya & Mohammed, 2017). A financial statement is used to assess the profitability and financial stability of a company, enabling management to make informed decisions about effectively using and managing financial resources. Studies by Nadiah and Jamil (2020) and Annastazia and Robert (2014) provided a definition of financial performance within SMEs, emphasizing its core as the interpretation of financial statements. Another study by Nyangoma (2012) also highlighted the critical role of initial wealth generation in SMEs for sustaining market presence and achieving robust financial performance. This insight underscores that the financial success of SMEs hinges on their adeptness in efficiently leveraging assets and generating cash flow, aspects often influenced by technology adoption. Evaluating SMEs' financial performance involves diverse approaches, such as analyzing profitability or utilizing size metrics. Prior studies, including works by Ahmad and Jamil (2020), Majenga and Mashenene (2014), Annastazia and Roberts (2014), Tundui and Tundui (2012), and Nyangoma (2012), laid a foundation for assessing SME financial performance by considering parameters like profit, operating profit, sales, and cash flow.

Stability in business growth and profitability emerged as prominent indicators of superior enterprise performance, as supported by insights from Annastazia and Robert (2014) and Nyangoma (2012). Effective maintenance and updates of records by SME owners enable

easy access to such vital information. According to Tundui and Tundui (2012), measuring financial performance predominantly through sales volumes is significant, as higher sales often signify greater success for SMEs. Additionally, sales growth serves as a robust marker of SMEs' financial health, especially when facilitated by access to affordable financial services like credit, as indicated by Ahmad and Jamil (2020), Lee, Wang, and Ho (2020), and Tundui and Tundui (2012). The presence of positive cash flow significantly augments profitability, sustainability, and future planning within any enterprise (Laghari, Ahmed, & García, 2023; Ahmad, 2016). This essential financial metric revolves around the fluid movement of funds between incoming and outgoing cycles. Consequently, this study aims to gauge SMEs' financial performance using profit, operating profit, sales, and cash flow as primary indicators, building upon these well-established measures.

2.6.2 Non-financial Performance (NFP)

Studies by Pavlović, Rašković-Depalov, and Milovanović (2023) and Dikolli (2010) define non-financial performance as quantitative data about SMEs that is not expressed in monetary terms. Rather than solely relying on monetary value, SMEs are advised to consider qualitative evidence to gauge their performance. Recognizing the importance of qualitative information, many SMEs now view it as integral to enhancing their performance. Consequently, non-financial performance measures are anticipated to emerge as pivotal indicators for future performance evaluation. Examples of non-financial performance metrics include employee or customer satisfaction, market expansion, and the development of new products. This study aligns with previous studies by Ahmad and Jamil (2020), Daniel and Okibo (2014), and Christopher and David (2003), focusing on assessing the non-financial performance of SMEs in terms of their valued customers, employee conditions, and

product development. The study by Christopher and David (2003) emphasized that customer loyalty and employee satisfaction significantly impact SMEs' non-financial performance, ultimately affecting their profitability (Ahmad & Jamil, 2020). Enhanced SME performance correlates with higher levels of customer and employee loyalty, indicating satisfaction with the provided products or services. A business's ability to address customer needs fosters satisfaction and loyalty. Moreover, Ahmad and Jamil (2020) and Daniel and Okibo (2014) highlighted employee growth, market expansion, and product development as critical indicators of non-financial performance. Venturing into new markets or diversifying product ranges positively influences an enterprise's performance (Ahmad & Jamil, 2020). Thus, this study aims to utilize employee conditions, valued customers, and product or service development as key parameters for assessing SMEs' non-financial performance.

2.7 TOE Factors and Technology Adoption

A major model applied in this study is the Technology-Organisation-Environment (TOE) framework, which developed from the Diffusion of Innovation (DOI) theory—a fundamental idea for the TOE framework introduced by Tornatzky and Fleischer (1990) and Davis et al. (1989). The TOE framework is a comprehensive model that illustrates the complex process of technology adoption at the SME level (Qalati et al., 2021). The three main pillars of this theoretical framework—technological factors, organisational factors, and environmental factors—have a substantial impact on the different stages of initialization, adoption, and implementation within SMEs (Habiboglu et al., 2020). In the context of technology, factors include relative advantage, compatibility, and complexity. The adoption of technology in SMEs is then examined within the TOE framework, considering organisational factors such as firm size, top management support, and financial resources.

Additionally, environmental factors that may impact technology adoption in SMEs are studied, including competitive pressure, customer pressure, and government support (Habiboglu et al., 2020).

Technology adoption can mediate the relationship between TOE factors and the performance of SMEs. Studies show that TOE factors significantly influence technology adoption (Pizam et al., 2022; Ali et al., 2022; Qalati et al., 2021; Ali et al., 2021). Technology adoption seeks to increase people's knowledge of how to use, apply, and embrace technology to enhance processes in all spheres of life. According to Goker (2021), the use of technology is intended to allow the organisation to detail the process. A study by Amrozi, Ekowati, Putranto, Zikky, Zulkarnain, & Ilham (2023) specifically designed a technological model (TOE framework) to assist users in achieving their objectives. The integration of technology through development and adoption can impact SMEs' financial and non-financial performance. Another study by Abugabah and Sanzogni (2010) asserted that the adoption of technology can influence the performance of SMEs. According to Amrozi et al. (2023), implementing technology adoption can enhance business performance by expanding the services provided to employees, customers, and authorities. Thus, the performance of SMEs can be greatly impacted by the deployment of technologies, particularly in relevant technology adoption for the service sector.

2.8 Mediating Effect of Technology Adoption on TOE factors and Financial Performance

Technology adoption is expected to reduce costs, increase output without raising prices, and improve the quality of services and goods produced (Thaha et al., 2022). In many areas, companies use the Technology-Organisation-Environment (TOE) framework to better understand their commitment to technology adoption, as it reveals their intention to embrace technologies (Nguyen et al., 2022). Understanding financial statements and generating income from the ground up are the two main factors that determine a small business's financial performance. The adoption of technology frequently affects SMEs' success. There are different ways to assess financial performance, such as profitability analysis and size metrics. Business growth and profitability are important indicators of superior enterprise performance. Increased sales are a clear indicator of success, particularly when they are facilitated by reasonably priced financial services (Ahmad & Jamil, 2020; Lee et al., 2020; Tundui & Tundui, 2012). According to Laghari et al. (2023) and Ahmad (2016), positive cash flow improves sustainability, profitability, and long-term planning. Therefore, this study aims to evaluate SMEs' financial performance by examining profit, operating profit, sales, and cash flow. Adopting technology as a mediator has a significant impact on SME performance, as it allows businesses to enhance processes through better understanding and application of technology.

2.9 Mediating Effect of Technology Adoption on TOE factors and Non-financial Performance

The widespread use of technology has drastically changed how businesses operate and has significantly impacted consumer behavior, preferences, and spending patterns. It benefits management strategies such as communication, information access, data management, decision-making, and knowledge management, as Adeosun et al. (2008) point out. According to Qalati et al. (2021), the TOE framework is a comprehensive model that illustrates how SMEs and businesses adopt new technologies. Technology helps businesses stay ahead of the competition by improving customer service, management performance, and the quality of information. Additionally, technology can provide businesses with a competitive edge (Thaha et al., 2022).

In this study, non-financial performance refers to data about SMEs that cannot be directly monetized. Therefore, SMEs must carefully examine this evidence to evaluate their overall performance. Some non-financial performance measures include employee conditions, such as (i) skills and efficiency and (ii) commitment and satisfaction; valued customers, such as (i) new customers and (ii) regular or loyal customers; as well as product or service development, such as (i) larger quantities and (ii) higher quality (Ahmad & Jamil, 2020). Previous studies have identified these key indicators as essential for assessing SMEs' non-financial performance. Adopting new technology has a significant impact on the performance of SMEs because it helps them learn how to use technology to improve their operations, enabling their employees to better serve customers. This study employs the TOE framework to assist SMEs in planning and utilizing technology more efficiently. The use of

technology in the service sector significantly influences the transformation of SMEs, particularly in terms of adopting appropriate technology (Razak et al., 2021).

2.10 Empirical Studies

The dynamic evolution of SMEs has a significant impact on the business landscape, attracting considerable attention in various research fields. Among these studies, the TOE framework stands out due to its substantial effect on real-world business models and operational processes. Similar studies on organisational behavior have demonstrated the TOE framework's critical role in helping companies achieve their goals (Habiboglu et al., 2020). The DOI theory has been compared to the TOE framework in several research projects to highlight their combined impact on understanding technology adoption and promoting organisational innovation (Dadhich & Hiran, 2022; Qalati et al., 2021; Habiboglu et al., 2020). According to Qalati et al. (2021), a TOE framework for small and medium-sized businesses should focus on three main factors: technology, organisation, and environment. Real-world examples have demonstrated the use of the TOE framework to study technology adoption and innovation, including digital transformation. The study emphasizes the importance of a well-chosen sample that includes business owners, managers, and top executives. The majority of past studies used a closed-ended survey questionnaire to collect data and PLS-SEM (partial least squares structural equation modeling) to analyze the models. Therefore, the model presented by Qalati et al. (2021) is used as the basis for this study, contributing to an extension of the TOE framework and its application for small businesses.

Based on Ahmad and Jamil's (2020) study of microenterprises in Pahang, Malaysia, it was found that many businesses performed well overall, with even better outcomes in non-financial areas. The research examined both the financial and non-financial performance of 200 microenterprises. The financial performance focused on estimated profits, cash flow, and sales figures, while the non-financial performance included aspects such as working conditions, customer relationships, and product development projects (Ahmad & Jamil, 2020; Mamorena & Olumide, 2014; Peninnah, 2014; Mbugua et al., 2014; Wu, 2009). The questionnaire was designed to assess both financial and non-financial performance, with data collected using a 5-point Likert scale. The study employed a simple random sampling method and utilized SPSS for robust statistical analysis and conclusion drawing. Additional research supporting these findings includes studies by Hayford, Nkululeko, and Charles (2023). These authors used the TOE theory and found a strong, positive link between social media and SMEs' financial and non-financial performance. A study by Yadegaridehkordi et al. (2023) also measured the financial performance and other factors of small and medium-sized businesses. According to Al-Sharafi et al. (2023), the TOE factors make small businesses much more profitable through technology adoption. Research by Pavlović, Rašković-Depalov, and Milovanović in 2023 also found a strong link between knowledge, innovation culture, and non-financial performance indicators. Another study by Laghari, Ahmed, and García (2023) discovered that when cash flow decreases, firms' financial performance increases significantly. For more reading on summaries of journals by various authors, please refer to Appendix A.

2.11 Literature Gap

Numerous studies have explored the impact of the TOE framework on SMEs across various industries and regions (Maroufkhani et al., 2022; Abbasi et al., 2022; Qalati et al., 2021; Chatterjee et al., 2020; Abed, 2020). However, there is a significant research gap when it comes to the service sector in Sarawak, Malaysia. While there is substantial research on how technology adoption affects SME performance, few studies examine how these factors influence Sarawak's unique economic and environmental context (Qerul et al., 2021). Sarawak's service sector faces its own set of challenges and opportunities, distinct from those in other regions or sectors (Omar et al., 2015). This region is characterized by unique socioeconomic traits, cultural dynamics, infrastructure peculiarities, and environmental concerns, all of which shape the business environment for SMEs (Kwabena et al., 2021). Previous research frequently overlooks the subtle aspects that distinguish this context. Despite the consensus on the usefulness of the TOE framework in assessing small business performance, the interplay of these various components and their impact on the Sarawakian service sector remains largely unexplored (Maroufkhani et al., 2022; Abbasi et al., 2022; Qalati et al., 2021; Chatterjee et al., 2020; Abed, 2020).

Several specific questions remain unanswered, such as how SMEs in this region adopt and utilize new technologies, how they adapt their business strategies to the local market, and how environmental factors affect SME performance in Sarawak's service sector (Omar et al., 2015). There is a lack of empirical studies that specifically investigate these areas, making it challenging to understand the complex relationship between SMEs in this region and technology adoption (Makame et al., 2023). Thorough investigation and analysis are necessary to gain a comprehensive understanding of the impact of TOE factors on

technology adoption for SMEs in Sarawak's service sector. Researchers need to urgently explore how technology, organisational, and environmental factors impact the performance of SMEs in Sarawak. Such research efforts would not only make significant contributions to academic literature but also provide actionable insights for policymakers, business owners, and stakeholders looking to improve SME performance in Sarawak's dynamic service sector. A summary of the literature gap, as reported by various authors, is presented in Appendix A as a table.

2.12 Hypotheses Development

Technology adoption has significantly reshaped business operations, influencing behaviors, preferences, and spending habits. However, the adoption of technology within SMEs varies considerably due to a complex interplay of SME attitudes, personalities, social influencers, confidence levels, and contextual conditions that either facilitate or hinder change (Venkatesh, Thong, & Xu, 2012). Technology adoption includes both integrated technologies and unimplemented market innovations. Market innovations and existing technologies define the possibilities for adaptation (Baker, 2012). Various degrees of technological change confront diverse industries, with some changes being incremental while others may be disruptive, requiring different strategies for adoption (Habiboglu et al., 2020). It is not just about evaluating the technological impact of innovations but also how they can enhance or replace existing capabilities (Bryan & Zuva, 2021). Numerous studies have shown a positive correlation between technological factors and technology adoption, highlighting specific technological sub-dimensions such as relative advantage, compatibility, and complexity (Zhong & Hee, 2023; Nguyen et al., 2022; Qalati et al., 2021; Disu & Yo, 2018; Baker, 2012; Tornatzky et al., 1990). Therefore, the following hypothesis is developed:

H_1: *There is a significant relationship between technological factors and the technology adoption*

The organisational factors in the TOE framework encompasses a firm's internal factors such as communication processes, size, and resource allocation that significantly influencing adoption and implementation decisions (Zhong & Hee, 2023; Baker, 2012). Varied organisational factors emphasising team dynamics or centralised decision-making, link to adoption or implementation approaches within firms (Nguyen et al., 2022; Jilani et al., 2022). Effective organisational setups in SMEs facilitated the process of standardisation, operational flexibility, and workforce development, which are vital for technology advancements (Nguyen et al., 2022; Baker, 2012). Aligning progressive organisational methods with adept human resources is crucial for steering technology adoption progresses within SMEs, fostering an environment where employees embraced with change, enhancing competencies, and ensuring sustainability (Dadhich & Hiran, 2022). As a result, sub-dimensions for organisational like firm size, top management support, and financial resources that identified by Habiboglu et al. (2020) are earmarked as indicators for the organisational factors in this study. Therefore, the following hypothesis is developed:

H_2: *There is a significant relationship between organisational factors and the technology adoption*

The environmental factors in the innovation landscape profoundly shape technological decisions for firms, encompassing industry structures, technology infrastructure, and regulatory frameworks (Baker, 2012; Tornatzky & Fleischer, 1990). This complex amalgamation of elements significantly influences the direction and pace of

technological progress (Zhong & Hee, 2023; Jia, Guo, & Barnes, 2017; Baker, 2012; Tornatzky & Fleischer, 1990). For SMEs, this extends to intricate market dynamics, competitive forces, governmental policies, and external pressures guiding technology adoption. Studies show that these outside factors have a big impact on how small businesses use technology. They point out that competitive pressure, customer influence, and government support are the most important ones (Ji & Liang, 2016; Oliveira & Martins, 2011). These highly referenced environmental sub-dimensions such as competitive pressure, customer influence, and government support stand as critical indicators that mould and inform technology adoption strategies among SMEs (Muhamad et al., 2021; Habiboglu et al., 2020; Sallehudin et al., 2019; Alshamaila & Papagiannidis, 2013; Lin, 2013). Therefore, the following hypothesis is developed:

H_3: *There is a significant relationship between environmental factors and the technology adoption*

Technology adoption is anticipated to lower expenses, boost output without appreciable rise, and enhance the calibre of services and goods produced (Thaha et al., 2022). Financial performance in SMEs is primarily based on the interpretation of financial statements and the ability to generate initial wealth. Technology adoption often influences the success of SMEs. Evaluating financial performance involves various approaches, including profitability analysis and size metrics. Stability in business growth and profitability are key indicators of superior enterprise performance. Higher sales, especially when facilitated by affordable financial services, signify greater success (Ahmad & Jamil, 2020; Lee et al., 2020; Tundui & Tundui, 2012). Positive cash flow enhances profitability, sustainability, and future planning (Laghari et al., 2023; Ahmad, 2016). This study aimed to

gauge SME financial performance using profit, operating profit, sales, and cash flow as primary indicators. Therefore, the following hypothesis are developed:

H_4: *There is a significant relationship between technology adoption and the financial performance of SMEs*

Technology gives businesses a competitive edge by enhancing customer service, performance management, and information quality. Technology also gives businesses a competitive edge (Thaha et al., 2022). This study defined non-financial performance as quantitative data about SMEs that doesn't have a monetary value. It is crucial for SMEs to consider this evidence to assess their performance. The non-financial performance measures on employees' conditions such as (i) skills and efficiency, and (ii) commitment and satisfaction; valued customer such as (i) new customers, and (ii) regular or loyal customer; as well as product or service development such as (i) larger number, and (ii) good quality. Previous research has highlighted these key indicators for SMEs' non-financial performance (Ahmad & Jamil, 2020). Therefore, the following hypothesis is developed:

H_5: *There is a significant relationship between technology adoption and the non-financial performance of SMEs*

Technology adoption as a mediator significantly influenced the financial performance of SMEs, as it increases knowledge and embraces technology to enhance processes. The TOE framework aids in planning and implementing technology, enhancing business performance by expanding services to employees and customers. The profits, sales, and cash flow are used to measure financial performance, as key indicators of SMEs' efficiency in business, wealth creation, and resource acquisition (Ahmad & Jamil, 2020;

Majenga & Mashenene, 2014; Annastazia & Roberts, 2014; Tundui & Tundui, 2012; Nyangoma, 2012). In addition, technology adoption plays a crucial role in the relationship between technological-organisational-environmental factors and the financial performance of SMEs. Therefore, based on the key factors as discussed and from earlier chapters, the following hypothesis is developed:

H_6: There is a mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the financial performance of SMEs

Technology adoption has a significant impact on SMEs' non-financial performance because it enhances their understanding of how to use technology to improve operations processes, thereby enabling their employees to provide more services to customers. The TOE framework in this study acts to improve SMEs non-financial performance through technology strategy and implementation. The use of technology in the service sector can significantly impact the transformation of SMEs, particularly when it comes to the adoption of pertinent technology. Therefore, based on the key factors as discussed and from earlier chapters, the following hypothesis is developed:

H_7: There is a mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the non-financial performance of SMEs

2.13 Chapter Summary

This chapter offers a comprehensive examination of the factors impacting technology adoption within SMEs. It revolves around an in-depth exploration of the TOE framework, highlighting its three drivers, including technological factors, organisational factors, and environmental factors, and their pivotal roles in the performance of SMEs. The chapter emphasises the robust empirical support and theoretical foundation of the TOE framework on technology adoption, drawing insights from studies that utilise this framework to understand and facilitate its impacts to performance of SMEs. Furthermore, this chapter discusses the TOE framework with established DOI theory, offering a comprehensive understanding of how technology adoption has a mediating effect on the relationship between technological-organisational- environmental factors and the performance of SMEs. Lastly, the chapter suggests research ideas and methodologies derived from this foundation for further exploration.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter builds on the fundamental ideas from the Technology-Organisation-Environment (TOE) framework introduced in the previous chapter to explore technology adoption in SMEs. The chapter aims to investigate in greater detail the relationship between technological, organisational, and environmental factors and the performance of SMEs, as well as the mediating role that technology adoption plays in this relationship. This chapter seeks to shed light on important factors, pertinent methodologies, and empirical pathways that contribute to a deeper understanding of how small businesses adopt new technologies.

3.2 Research Design

The TOE framework, developed by Tornatzky and Fleischer (1990) from the DOI theory, serves as the foundation for this study's research framework, building upon the foundational work of Qalati et al. (2021). This study is designed to delve deeper into the intricate influence of TOE on technology adoption. By embracing and extending the hypotheses articulated by Qalati et al. (2021), this study aims to investigate the relationship between the three dimensions of the TOE framework: technological, organisational, and environmental factors. This extension further expands the scope of SME performance to encompass both financial performance and non-financial performance facets of SMEs' performance metrics. Technology adoption is used as a mediator to determine the relationship between technological, organisational, and environmental factors and the performance of SMEs, both in terms of financial performance and non-financial

performance. A study by Ahmad and Jamil (2020) supports the notion that this study should comprehensively evaluate the multifaceted dimensions of SME performance.

Through a meticulous synthesis of extensive literature, the study carefully crafts a series of hypotheses. These hypotheses serve as the scaffolding for this research, aimed at rigorously examining the complex interplay between technological, organisational, and environmental factors and the performance of SMEs, providing a holistic understanding of both financial and non-financial performance aspects. As a result, this study developed a conceptual framework as demonstrated in Figure 3.1.

According to the conceptual framework, technological factors (H1), organisational factors (H2), and environmental factors (H3) from the TOE framework are applied as independent variables in this study. Each of these factors is measured by specific sub-dimensions: technological factors are assessed through relative advantage, compatibility, and complexity; organisational factors through firm size, top management support, and financial resources; and environmental factors through competitive pressure, customer pressure, and government support. All the indicators for this study were carefully selected in accordance with previous studies that have been well tested and supported by many researchers (Qalati et al., 2021; Ahmad & Jamil, 2020; Bagheri et al., 2019).

This study also divides the performance of SMEs (dependent variables) into both financial performance (H4) and non-financial performance (H5) to enhance the understanding of SME performance in both domains. Technology adoption, serving as a mediator, is used to study the mediating effect on the relationship between technological,

organisational, and environmental factors and the performance of SMEs, for both financial performance (H6) and non-financial performance (H7). As a result, seven hypotheses have been generated as relevant to this study. For example, H1, H2, H3, H4, and H5 demonstrate a direct relationship (shown as non-dotted lines), while H6 and H7 demonstrate an indirect relationship with the mediator (shown as dotted lines).

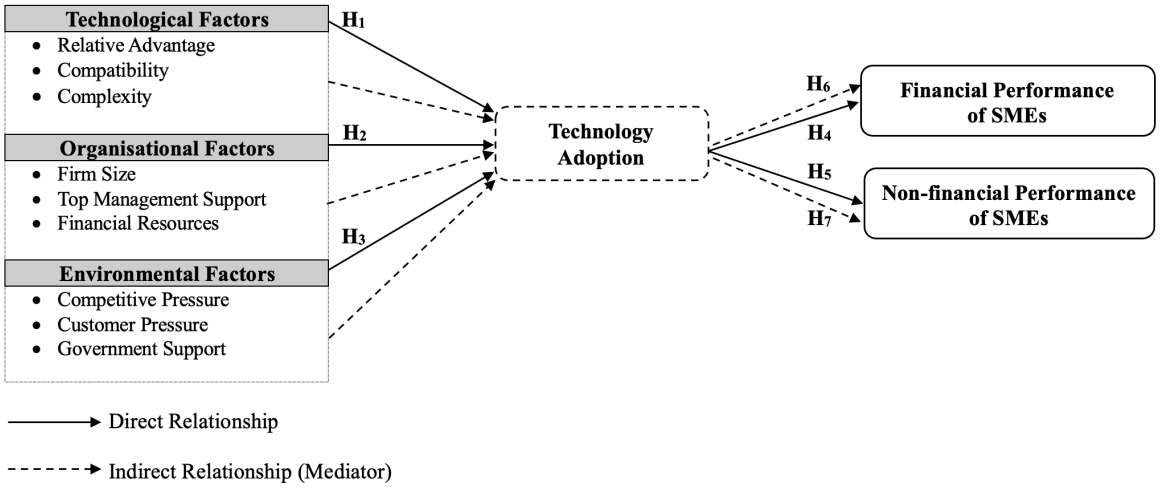


Figure 3.1: Conceptual Framework

The following Table 3.1 demonstrated a summary of the hypotheses (refer Figure 3.1 for the conceptual framework) of this study. The hypotheses H_1 shows a direct relationship between technological and technology adoption; H_2 shows a direct relationship between organisational and technology adoption; H_3 shows a direct relationship between environmental and technology adoption; H_4 shows a direct relationship between technology adoption and financial performance; H_5 shows a direct relationship between technology adoption and non-financial performance; H_6 shows an indirect relationship between TOE factors and the mediating effect of technology adoption together with financial performance; and H_7 shows the indirect relationship between TOE factors and the mediating effect of technology adoption and non-financial performance.

Table 3.1: Summary of Hypothesis Testing

Hypothesis	Relationship
H_1	Technological Factors → Technology Adoption
H_2	Organisational Factors → Technology Adoption
H_3	Environmental Factors → Technology Adoption
H_4	Technology Adoption → Financial Performance of SMEs
H_5	Technology Adoption → Non-financial Performance of SMEs
H_6	TOE Factors → Technology Adoption → Financial Performance of SMEs
H_7	TOE Factors → Technology Adoption → Non-financial Performance of SMEs

3.3 Sampling Techniques

This study used a structured questionnaire to collect primary data from a selected sample of SMEs, following a careful selection process as part of its research methodology. The demographic information and profiles of the targeted SMEs were sourced from SME Corporation Malaysia (2023), a renowned repository known for its comprehensive and reliable database on small and medium-sized enterprises. The cooperation of SME Corporation Malaysia is pivotal in ensuring the credibility and authenticity of the data used in this study. According to SME Corporation Malaysia (2023), the agency maintains a record of 321 SMEs registered in the service sector in Sarawak at the time this study was conducted. Registration with SME Corporation Malaysia is mandatory for companies classified as Sendirian Berhad, but it remains optional for sole proprietor businesses operating within the Sarawak region due to different legal requirements from the state (SME Corporation Malaysia, 2023). This approach ensured a comprehensive representation of the SME landscape, encompassing different business structures and sizes within the service sector in Sarawak.

The adoption of a cluster sampling methodology presents an advantageous strategy for this study. This approach involves a systematic, two-step process that entails breaking down the expansive region of Sarawak into distinct and manageable divisions. These

divisions include Kuching, Samarahan, Sri Aman, Betong, Sarikei, Sibu, Mukah, Bintulu, Kapit, Miri, and Limbang. The next step involves a random selection of one of these divisions, focusing on all SMEs operating within that specific area (Kuching). For example, the SMEs represented in this study refer to respondents from Kuching, including the districts of Kuching, Bau, and Lundu, as well as the sub-districts of Padawan and Sematan (Sarawak Government, 2024). According to insights from SME Corporation Malaysia (2023), Kuching is the best representative of SMEs in the service sector within the Sarawak context. This is because, among the 321 registered SMEs, 150 are located in Kuching (both districts and sub-districts), while the remaining 171 SMEs are relatively small in population across other divisions (Samarahan, Sri Aman, Betong, Sarikei, Sibu, Mukah, Bintulu, Kapit, Miri, and Limbang), with some no longer active in the market (SME Corporation Malaysia, 2023). Therefore, this study targets involving all 150 SMEs in the service sector from the Kuching division as the primary respondents for this study. By adopting the cluster sampling technique, several advantages emerge, such as minimizing the costs and time required for data collection. This method proves especially efficient when attempting to glean a representative sample from an extensive population while being mindful of financial and temporal constraints. The comprehensive data on SMEs in the service sector in Sarawak involved engaging with SME Corporation Malaysia. These listings comprised crucial information such as company names, addresses, contact numbers, emails, and key contact persons, providing a comprehensive profile of the SMEs involved. Renowned researchers like Saunders et al. (2009) also recommended using this specific sampling methodology to ensure the sampled data accurately reflect and represent the characteristics of the target areas.

The distinct population distribution across Sarawak's various divisions informed the decision to center this study on the Kuching division (Figure 1.2). Among the 321 SMEs registered in the service sector, the Kuching division is home to a significant 150 SMEs (SME Corporation Malaysia, 2023). This pivotal insight forms the basis for focusing the research on the service sector SMEs located specifically within Kuching, Sarawak, as advised by SME Corporation Malaysia (2023). The aim of this strategic choice is to ensure that the study's findings accurately represent and capture the diverse landscape of SMEs in the state of Sarawak. A comparable study by Omar et al. (2015), which explored the TOE model within the Sarawak homestay industry, also supported this suggestion. That study focused on Kuching by selecting 150 homestays using cluster sampling techniques through a close-ended questionnaire distributed to branch personnel such as managers and floor employees.

The following Figure 3.2 demonstrates the sample size for this study as generated using GPower software. The results show that the total sample size required for this study is 119 respondents, based on a medium effect size of f^2 of 0.15 and a study power of 0.95. Therefore, this study selected a sample size of 150 SMEs. This sample size is supported by a study from Purwanto and Sudargini (2021), which suggests applying a smaller sample size of 30 to 50 in a PLS-SEM study. Meanwhile, Mujahed et al. (2021) and Krishnan and Ramasamy (2011) suggest a sample size of 100 to 150 to ensure a stable maximum likelihood estimation solution. Since PLS-SEM analyses offer solutions with small sample sizes, the nature of the population (321 SMEs in Sarawak) dictates situations where a small sample size (150 SMEs in Kuching) is acceptable (Purwanto & Sudargini, 2021; Hair, Risher, Sarstedt, & Ringle, 2019). Therefore, the sample size of 150 SMEs selected is considered

substantial in this study. The following Figure 3.2 shows the suggested sample size for this study as generated by GPower software; this information serves as a guideline for the targeted sample in this study.

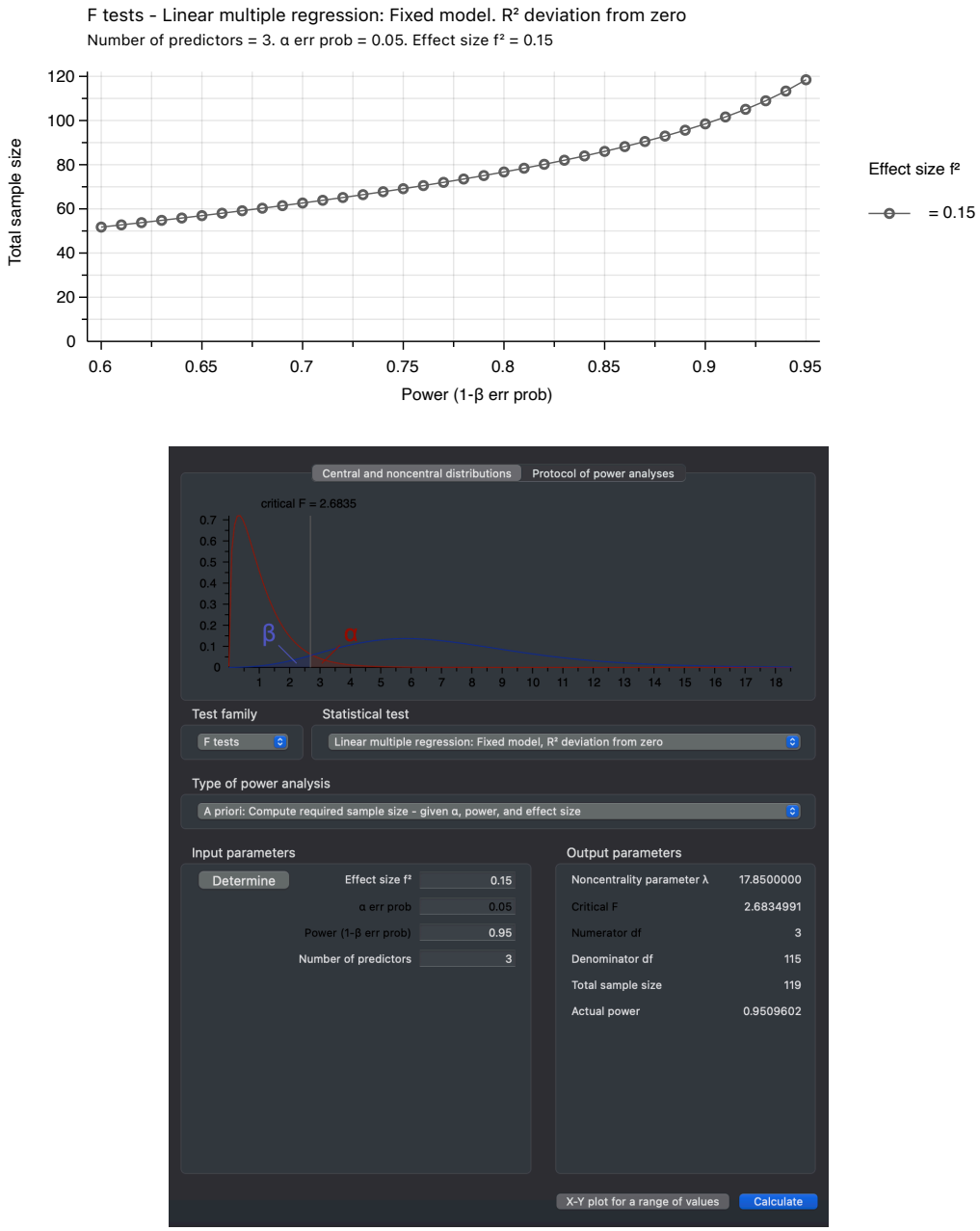


Figure 3.2: Sample size for this study as generated by G*Power software

3.4 Instrument Development

Developing a reliable instrument to measure various constructs within this study is crucial for accurate and valid analysis. This process involved several steps, beginning with a clear definition of each construct based on an extensive literature review and conceptual frameworks. This study investigates the relationship between technological, organisational, and environmental factors and technology adoption, whether technology adoption has a mediating effect on the relationship between these factors and the financial performance of SMEs in Sarawak's service sector, and whether technology adoption mediates the relationship between these factors and the non-financial performance of SMEs in Sarawak's service sector. This entails formulating a pool of items or questions to capture the essence of constructs like technological factors, organisational factors, and environmental factors, along with the financial and non-financial performance of SMEs with their sub-dimensions, as discussed in earlier parts (Ahmad & Jamil, 2020). Technology adoption as a mediator is essential for understanding how Sarawak is promoting technology adoption across all economic sectors to foster a digitally driven economy that enhances productivity, efficiency, and higher-skilled employment opportunities (Lihan, 2023).

A literature review from previous studies helped refine the items to ensure they were suitable for capturing the intended constructs in the questionnaire. A pilot test was conducted on a small sample of SMEs (30 SMEs), involving the administration of a preliminary questionnaire compiled with refined items (Ullah, Khan, Mueezuddi, Khalid, & Hashmi, 2023). This stage evaluated item clarity, comprehensibility, and relevance to identify areas needing improvement. The analysis of response patterns assisted in eliminating or revising items that did not align with the intended constructs. Item reduction and refinement were

pivotal, utilizing statistical analyses such as Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to further streamline the instrument. This iterative process culminated in refining the questionnaire and ensuring its validity and reliability through rigorous statistical tests (Zhong & Hee, 2023; Dadhich & Hiran, 2022; Nguyen et al., 2022; Qalati et al., 2021).

Thorough documentation detailing the instrument development journey, including reasons for item selections, summaries of pilot test results, and the final item pool, is essential. Additionally, comprehensive guidelines for administering the questionnaire are established to ensure clarity and consistency in data collection procedures (Zhong & Hee, 2023; Dadhich & Hiran, 2022; Mujahed et al., 2022; Nguyen et al., 2022; Qalati et al., 2021; Ahmad & Jamil, 2020). This systematic approach contributes valuable insights into the TOE factors, technology adoption, and the performance of SMEs, ensuring the integrity of subsequent research analysis and findings.

3.5 Data Collection

This study collected primary data using a constructed questionnaire that draws from well-established questionnaires applied in previous studies. The data collection method employed a closed-ended questionnaire meticulously designed to capture comprehensive information crucial to the study's objectives. The focus of this study was on respondents holding pivotal roles within SMEs, including business owners or directors, top-level executives (such as CFOs, COOs, and CEOs), and managers, deemed insightful representatives due to their in-depth knowledge of their respective companies (Qalati et al., 2021).

The questionnaire is structured into three distinct sections: Part A, Part B, and Part C. Part A focuses on gathering general demographic information from SME representatives responding to the questionnaire. This section encompasses information such as gender, age, education level, position, SME's component in the service sector, age of the SME in operation, duration of technology adoption by the SME, number of employees in the SME, annual sales of the SME, types of technology adopted, and category of technology adoption, as per validated questions used in prior studies as shown in Table 3.2.

Table 3.2: Demographic Information Collecting for Questionnaire

General Information	Measuring Items	Source
Gender	- Male - Female	(Qalati, Li, Ahmed, Mirani, & Khan, 2021; Dadhich & Hiran, 2022; Yadegaridehkordi, Foroughi, Iranmanesh, Nilashiv, & Ghobakhloo, 2023)
Age	- Less than 25 - 26-35 - 36-45 - 46-55 - Above 56	(Qalati, Li, Ahmed, Mirani, & Khan, 2021)
Education Level	- Basic/ Secondary - Undergraduate - Master's - PhD/ Doctorate - Others	(Qalati, Li, Ahmed, Mirani, & Khan, 2021)
Position	- Owner/ Director - Executive - Manager	(Qalati, Li, Ahmed, Mirani, & Khan, 2021)
Nature of Business	- Utilities, Transportation, Information & Communication - Wholesale and Retail, Food and Beverage and Accommodation - Finance and Insurance, Real Estate and Business Service - Government Service - Other services	(Lee & Voon, 2022)
Business Entity	- Sole Proprietorship - Partnership - Limited Liability Partnership (LLP) - Private Limited Company (Sdn. Bhd.)	(SME Corporation Malaysia, 2023)

Table 3.2: Demographic Information Collecting for Questionnaire (continued)

Duration in Operation	- Less than 2 years - 2 to 4 years - 5 to 7 years - 8 to 10 years - More than 10 years	(Dadhich & Hiran, 2022; Nguyen, Le, & Vu, 2022)
Number of Employees	- 0 – 4 (Micro) - 5 – 29 (Small) - 30 – 75 (Medium)	(SME Corporation Malaysia, 2023)
Annual Sales	- Less than RM300,000 - RM300,000 – RM3 Millions - RM3 Millions – RM20 Millions	(SME Corporation Malaysia, 2023)
Types of Technology Adopted	- Cloud computing - Robotics - Social media - E-commerce - Financial technology (Fintech) - Enterprise resource planning (ERP) - Big data analytic - Others	(Disu & Yo, 2018)
Duration of Technology Adoption	- Less than 12 months (1 year) - 13 to 24 months (2 years) - 25 – 36 months (3 years) - 37 to 60 months (5 years) - More than 60 months (5 years)	(Zhong & Hee, 2023)
Category of Technology Adoption	- Innovators - Early Adopters - Early Majority - Late Majority - Laggards	(Rogers, 2022)

The relationship between technological factors, organisational factors, environmental factors, and technology adoption is tested in Part B through established questions from previous studies, categorized into four sections. The first section evaluates the mediator, technology adoption, with questions adapted from Disu and Yo (2018). The following Table 3.3 shows the development of the questionnaire for this study as adapted from previous studies.

Table 3.3: Measuring Items for Technology Adoption

Measuring Items	Source
Technology Adoption	
TA1: My company adopts technology **TA2:** My company started using technology regularly **TA3:** My company adopts technology to support business function such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partner and information sharing **TA4:** My company would highly recommend technology adoption for other enterprises	(Disu & Yo, 2018)

The second to fourth sections evaluate technological factors, organisational factors, and environmental factors with questions adopted from Qalati et al. (2021). In this study, technological factors are measured using dimensions like relative advantage, compatibility, and complexity; organisational factors are measured using dimensions like firm size, top management support, and financial resources; and environmental factors are measured using dimensions like competitive pressure, customer pressure, and government support, as shown in Table 3.4 (Qalati et al., 2021). Each of these dimensions is assessed using validated questions with a five-point Likert scale (1: strongly disagree; 2: disagree; 3: neutral; 4: agree; and 5: strongly agree) sourced from relevant previous studies, ensuring their reliability and validity (Zhong & Hee, 2023; Dadhich & Hiran, 2022; Nguyen et al., 2022; Qalati et al., 2021). Reputable researchers in the field, such as Zhong and Hee (2023), Dadhich and Hiran (2022), Mujahed et al. (2022), Nguyen et al. (2022), Qalati et al. (2021), and Ahmad and Jamil (2020), have supported the adoption of these questions through robust statistical analyses like EFA and CFA. Therefore, this approach ensured the credibility of the questions, allowing for a more comprehensive and rigorous assessment of the relationship between TOE factors and technology adoption. The following Table 3.4 shows the development of the questionnaire for this study as adopted from various studies.

Table 3.4: Scale Items of the Selected Attributes for TOE Factors

	Measuring Items	Source
Technological Factors		
Relative Advantage	**RA1:** Technology adoption makes my company's business more efficient **RA2:** Technology adoption lowers my company's costs **RA3:** Technology adoption improves my company's customer service **RA4:** Technology adoption attracts new sales, new customers, and/or new markets to my company	(Nguyen, Le, & Vu, 2022; Mustafa, Saleem, & Dost, 2021)
Compatibility	**CP1:** Technology adoption fits with my company's needs for existing production/ service process **CP2:** Technology adoption fits with the needs of my company's existing management system **CP3:** Technology adoption fits with my company's existing organisational structure **CP4:** Technology adoption fits with my company's existing technical needs **CP5:** Technology adoption fits with my company's current business needs **CP6:** Technology adoption fits with the needs of my company's existing customers	(Zhong & Hee, 2023; Yoon, Lim, & Park, 2020)
Complexity	**CX1:** The use of technology would be easy for my company **CX2:** Technology adoption would be easy on marketing activities for my company **CX3:** The skills needed to use on technology would be easy for employees in my company **CX4:** It is easy to become skilled at using technology for my company	(Disu & Yo, 2018)
Organisational Factors		
Firm Size	**FS1:** The capital of my company is higher compared to the other companies **FS2:** The revenue of my company is higher compared to the other companies **FS3:** The number of employees at my company is high compared to the other companies	(Nguyen, Le, & Vu, 2022; Jilani, Moniruzzaman, Mouri Dey, Alam, & Uddin, 2022)
Top Management Support	**TS1:** Top management in my company believes that introducing technologies is strategically important **TS2:** Top management in my company is willing to invest in the introduction of technology **TS3:** Top management in my company is willing to take responsibility in the process of introducing technology **TS4:** Top management in my company encourages the updating of the company's technology to improve competitiveness **TS5:** Top management in my company actively encourages the use of technology to gain competitive advantages **TS6:** Top management in my company is willing to provide relevant training	(Zhong & Hee, 2023; Maduku, Mpinganjira, & Duh, 2016; Wang, Wang, & Yang, 2010)

Table 3.4: Scale items of the selected attributes for TOE factors (continued)

Financial Resources	**FR1:** Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies **FR2:** Financial support (loan, grant, etc.) for my company on adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.) **FR3:** My company will make adoption of technology more seriously if it received adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	(Mujahed, Ahmed, & Samikon, 2022)
Environmental Factors		
Competitive Pressure	**CPP1:** The adoption of technology for my company is due to pressure within the industry to upgrade technology **CPP2:** The adoption technology for my company is to improve competitiveness in the industry **CPP3:** Adopting technology for my company is an important strategy to compete in the current market **CPP4:** If technologies are not introduced in my company, customers may choose competitors' products **CPP5:** If technologies are not introduced, my company may suffer competitive disadvantages	(Zhong & Hee, 2023; Jia, Guo, & Barnes, 2017)
Customer Pressure	**CS1:** Many customers for my company are keen that we should adopt the usage of technology **CS2:** My company relationship with customers would have suffered if we did not adopt the usage of technology **CS3:** Customers may consider my company as backward if we do not adopt the usage of technology **CS4:** Majority customers demand that my company establish strong relationships with them by adopting technology	(Abed, 2020; Wu, Mahajan, & Balasubramanian, 2003)
Government Support	**GS1:** The government provides sufficient motivational programs for technology adoption **GS2:** The government provides varieties of grants for technology adoption **GS3:** The government offers subsidies for technology adoption **GS4:** The government is adequately driving the use of technology by providing incentives for its adoption **GS5:** The government demonstrates a strong commitment to promote technology adoption	(Disu & Yo, 2018)

Part C of the questionnaire focuses on assessing the performance of SMEs across both financial and non-financial performance dimensions. Key indicators like profit, operating profit, sales, and cash flow serve as the measurements for the financial performance aspect. On the other hand, non-financial performance is measured through employee conditions such as (i) skills and efficiency, and (ii) commitment and satisfaction;

valued customers such as (i) new customers, and (ii) regular or loyal customers; as well as product or service development such as (i) larger number, and (ii) good quality. These are measured using a five-point Likert scale (1: much worse, 2: worse, 3: neutral, 4: better, and 5: much better) adapted from previous studies to ensure reliability and validity (Ahmad & Jamil, 2020; Akbar, 2020; El-Sishini, 2001; Ainin, Parveen, Moghavvemi, Jaafar, & Shuib, 2015).

The metrics employed in Part C align with the methodology of Part B, drawing from the study by Ahmad and Jamil (2020) to ensure consistency and reliability in the measurement criteria throughout the study. By incorporating these established measures, this section aims to comprehensively capture and evaluate the multifaceted performance aspects of SMEs, as shown in Table 3.5 (Ahmad & Jamil, 2020). The following Table 3.5 (Appendix B) shows the development of the questionnaire for this study.

Table 3.5: Measurement for Performance of SMEs in Financial and Non-financial Aspects

Performance of SMEs	Measuring Items	Source
Financial	**FP1:** My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses) **FP2:** My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses) **FP3:** My company's financial performance measured by sales (e.g., revenue) **FP4:** My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	(Ahmad & Jamil, 2020; Akbar, 2020; El-shishini, 2001; Ainin, Parveen, Moghavvemi, Jaafar, & Shuib, 2015)
Non-financial	**NFP1:** My company's non-financial performance measured by employee conditions on their skill and efficiency **NFP2:** My company's non-financial performance measured by employee conditions on their commitment and satisfaction **NFP3:** My company's non-financial performance measured by valued customers increased number of new customers **NFP4:** My company's non-financial performance measured by valued customers increased number of regular or loyal customers	

	NFP5: My company's non-financial performance measured by product or service development on a larger number of products or services **NFP6:** My company's non-financial performance measured by product or service development and an increase in good-quality products or services	

The data collection methodology for this study involved administering an online survey through Google Forms to 150 selected SMEs. Employing an online survey aligns with contemporary research practices and offers several advantages, as highlighted by Qalati et al. (2021). One of the key benefits is enhancing statistical power by reaching a larger and more diverse pool of respondents. This broader reach facilitates the collection of a substantial volume of information, enabling a more comprehensive analysis and ensuring a more robust dataset for the research. Additionally, the online platform allows for the integration of verified models, enhancing the reliability and validity of the collected data (Sawaean & Ali, 2020).

The use of Google Forms as the survey platform ensures accessibility and ease of participation for respondents. Its user-friendly interface enables participants to navigate the survey effortlessly, thereby encouraging higher response rates and reducing the likelihood of incomplete or erroneous data entries. Moreover, the online survey approach offers convenience to participants, allowing them to complete the survey at their convenience and from any location with internet access (Tian, Dogbe, Pomegbe, Sarsah, & Otoo, 2020). This flexibility in participation encourages higher engagement and may contribute to a more diverse and representative sample.

This study leverages the benefits of online surveys to maximize the statistical power and efficiency that digital data collection methods offer. This approach ensures a strong dataset and facilitates a thorough analysis of the research objectives (Qalati et al., 2021). Furthermore, a comprehensive approach was implemented, starting with the dissemination of emails and messages, followed by explanations of the questionnaire via phone calls or physical visits to targeted SMEs. To ensure data collection within a short duration, café sessions were also arranged via invitation for those SME representatives willing to attend. These communications included detailed explanations outlining the study's objectives, the relevance of participation, and a user-friendly hyperlink redirecting participants to the Google Form.

3.6 Data Analysis Method

This study adopts the data analysis methods from Qalati et al. (2021) and Bagheri et al. (2019) as the foundational blueprint, aligning them with the original TOE framework. This adaptation seeks to leverage their insights while expanding the understanding of the TOE framework's implications for SMEs in a nuanced manner. To ensure the robustness and reliability of the measurement models, Qalati et al. (2021) suggested using both IBM Statistical Package for the Social Sciences (SPSS) Version 29 and SmartPLS 4.1 for Partial-Least-Squares Structural Equation Modelling (PLS-SEM).

3.6.1 Pre-test

A pre-test is a crucial component of a quantitative study as it illuminates the adjustments required to develop efficient survey questionnaires. Administering a pre-test is crucial to ensure the accuracy and effectiveness on collection of data. The preliminary study

was deemed crucial as it illuminates the participants' comprehension of the survey questionnaire. The pre-test's outcome confirms the reliability of the chosen instruments. An inherent constraint of this pre-test is the limited sample size, which diminishes the potential for a reliable inference and augments the margin of error (Hashim, Mohamad, HalimLim, & Ahmat, 2022). However, this limited sample size pre-test was adequate to improve the questionnaire. This is because the primary objective of a pre-test is not to determine the reliability of the questionnaire, but to offer an initial indication. It is recommended to conduct a pre-test on individuals in the population who are similar to those who will be sampled, and under conditions that closely resemble the actual data collection process. It is imperative to meticulously record observations made during the pre-test and identify possible remedies for the actual data collection (Hashim et al., 2022). Significantly, it enables the researcher to pinpoint potential concerns within the survey questionnaire, drawing from personal experience. For creating the questionnaire, questions were adopted and adapted from previous studies (SME Corporation Malaysia, 2023; Yadegaridehkordi et al., 2023; Zhong & Hee, 2023; Dadhich & Hiran, 2022; Lee & Voon, 2022; Mujahed et al., 2022; Nguyen et al., 2022; Rogers, 2022; Mustafa et al., 2021; Qalati et al., 2021; Abed, 2020; Ahmad & Jamil, 2020; Akbar, 2020; Lim, & Park, 2020; Disu & Yo, 2018; Jia et al., 2017; Yoon et al., 2016; Ainin et al., 2015; Wang et al., 2010; Wu et al., 2003; El-shishini, 2001). The scale and elements were assessed by six industry experts for testing the accuracy and content among industry professional or expert with relevant backgrounds. Corrections are required to done based on their feedback, and a pilot test is required if there are any corrections made.

3.6.2 Pilot Test

A pilot test was conducted in this study for the questionnaire, as an instrument validation to ensure the accuracy and reliability for the questions, as accordance to the structural from previous studies. The pilot test is conducted with a smaller group of targeting respondents. In this study, the total sample size for actual test is 150 respondents from representing SMEs based on the listing from SME Corporation Malaysia (2023). Therefore, a sample size of 30 SMEs, according to the common rule of thumb of 20% or at least 30 respondents are chosen from the listing other than the targeted SMEs. In this study, the 30 SMEs are chosen from the Sarawak service sector that are not listed in Kuching division (150 SMEs) for the purposes of pilot test (Mujahed et al., 2021). According to Ullah et al. (2023), a pilot study can be performed at varying scales and involves testing a segment of the actual population. The purpose of pilot testing in this study is to assess the instrument's feasibility and identify any necessary improvements, particularly addressing any issues with the instrument itself.

3.6.3 Descriptive Analysis

This study used SPSS Version 29 for a descriptive evaluation as adopted from Qalati et al. (2021) and Bagheri, Mitchelmore, Bamiatzi, and Nikolopoulos (2019). The general information is analysed via SPSS's descriptive analysis for frequencies test including gender, age, education level, position, component of SME in service sector, age for SME in operation, duration of technology adoption for SME, number of employees in SME, annual sales of SME, and category of technology adoption. Where, the types of technology adopted is assessed with multi-response frequencies test due to the option for more than one choices to

be selected from respondents. Another similar study by Rajala and Kankaanpaa (2023) also suggested this analysis method showed an acceptable level of validity and reliability.

3.6.4 Model Analysis

This study applied a reflective-formative constructs as shown in Figure 3.3 construct for technology adoption as adopted from the study by Qalati et al. (2021), and Bagheri et al. (2019). The analysis for this study is carried-out for twice, primarily for the first-order model (as shown in Figure 3.3), and subsequently for second-order model (as shown in Figure 3.4) following the approach outlined by Qalati et al. (2021). This method enable researchers to analyse the overall influence of technology adoption on different dependent variables under various contexts. This study intends to analyse the construct of technology adoption as a reflective-formative type to avoid the misspecifications that may occur while calculating the results of R^2 values and path coefficient's values (Berbekova et al., 2024; Tehseen et al., 2020). This data analyses method is also known as a two-stage approach by Hair et al. (2021). The first-order model in this study is refers to the lower level variables that contained within measured variables (questions set in questionnaire). Based on Ahmad (2023), this can be the responses in a questionnaire survey. For example, in technological factors the measurement for relative advantage is labelled as RA1, RA2, RA3, RA4; compatibility as CP1, CP2, CP3, CP4, CP5, CP6; and complexity as CX1, CX2, CX3, CX4. In organisational factors, the measurement for firm size is labelled as FS1, FS2, FS3; top management support is labelled as TS1, TS2, TS3, TS4, TS5, TS6; and financial resources is labelled as FR1, FR2, FR3. In environmental factors, the measurement for competitive pressure is labelled as CPP1, CPP2, CPP3, CPP4, CPP5; customer pressure is labelled as CS1, CS2, CS3, CS4; and government support is labelled as GS1, GS2, GS3,GS4, GS5. On the other hand, the second-order model

in this study is refers to the lower level model variables that contained variables from first-order model, which themselves have effects on their measured indicators (Ahmad, 2023). For example, in technological factors referred to relative advantage (RA), compatibility (CP), and complexity (CX). In organisational factors referred firm size (FS), top management support (TS), and financial resources (FR). In environmental factors referred competitive pressure (CPP), customer pressure (CS), and government support (GS1). To ensure higher accuracy Qalati et al. (2021) suggested to run the test on both first- and second-order model.

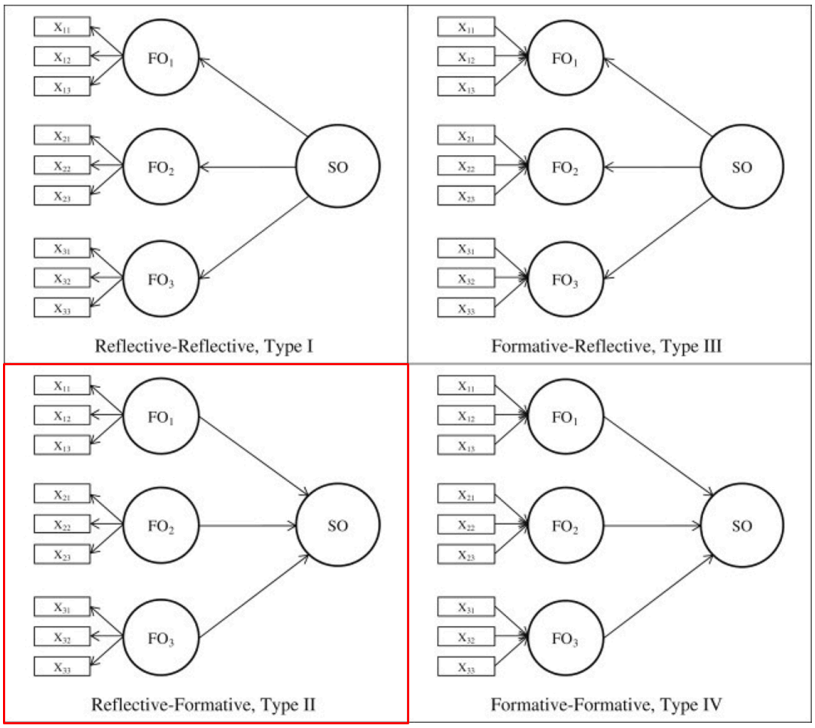


Figure 3.3: Reflective and formative relationships in PLS-SEM
Source: Ryan (2020)

There are two diagrams demonstrated in Figure 3.4 and Figure 3.5 to ease readers' understanding (Qalati et al., 2021). The mediating effects from technology adoption on the relationship between independent variables (TOE factors) and dependent variables (financial performance and non-financial performance) are auto-generated in the SmartPLS 4.1 for

MacBook's version according to the diagram. The following Figure 3.4 shows the first-order model drawing from SmartPLS 4.1 in a reflective-formative construct (Ringle et al., 2022); this information is served as a guideline for the data analyses for this study.

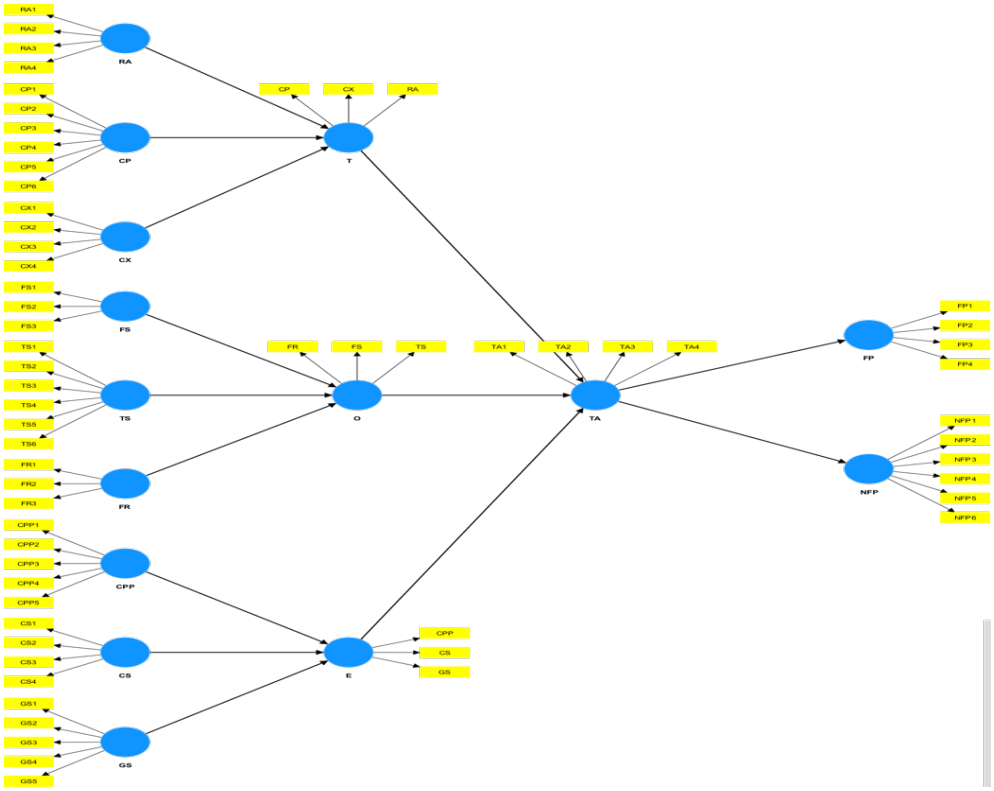


Figure 3.4: First-Order Model

The following Figure 3.5 shows the second-order model drawing from SmartPLS 4.1 in a reflective-formative construct (Ringle et al., 2022); this information is served as a guideline for the data analyses for this study.

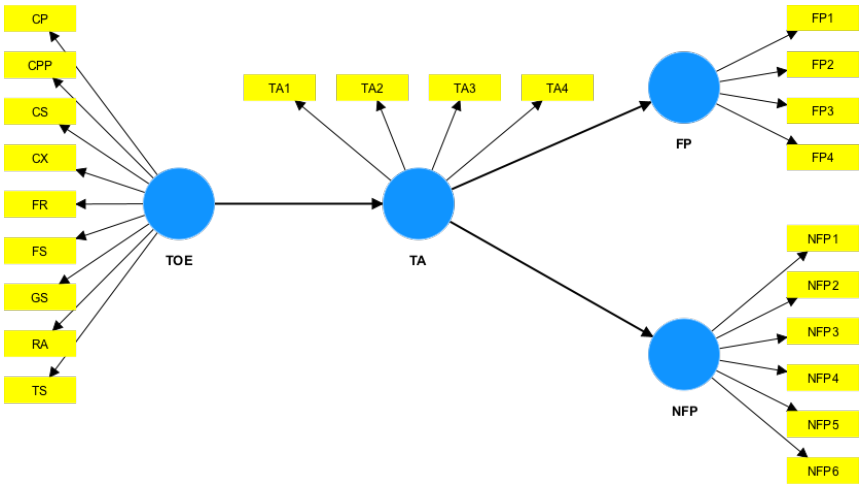


Figure 3.5: Second-Order Model

3.6.4.1 Evaluation of the Measurement Model

The evaluation of the measurement model involved employing the Kaiser-Meyer-Olkin (KMO) test through SPSS Version 29 to assess on the sampling adequacy and ensure data suitability for this study (Qalati et al., 2021). The KMO test evaluates the strength of partial correlations among variables, indicating how well these factors interrelate. KMO values near 1.0 are deemed optimal, while those below 0.5 are deemed inadequate. Currently, many researchers proposed a threshold of at least 0.80 as suitable for initiating factor analysis as shown in Table 3.6 (International Business Machines Corporation, 2021; Meseguer-Artola, Aibar, Llados, Minguillon, & Lerga, 2020). In this study, the KMO result for greater than an acceptable threshold of 0.50 is considered substantial for explanatory factor analysis as KMO results in between 0.50 – 0.90 is deemed as reliable as accordance to studies from Qalati et al. (2021), and Bagheri et al. (2019). The following Table 3.6 shows the tabular for KMO from Meseguer-Artola et al. (2020); this information is served as a guideline for the data analyses for this study.

Table 3.6: Tabular for KMO

KMO Measure	Interpretation
KMO ≥ 0.90	Marvellous
0.80 ≤ KMO < 0.90	Meritorious
0.70 ≤ KMO < 0.80	Average
0.60 ≤ KMO < 0.70	Mediocre
0.50 ≤ KMO < 0.60	Terrible
KMO < 0.50	Unacceptable

Source: Meseguer-Artola et al. (2020)

Then, Bartlett's test of Sphericity which can be done through SPSS Version 29 to examine the hypothesis that the correlation matrix equals an identity matrix, indicating variables are unrelated and unsuitable for factor analysis on this study (Qalati et al., 2021). A significant test result (typically below 0.05) rejects the null hypothesis, suggesting that the correlation matrix isn't an identity matrix, signifying interrelationships between variables (International Business Machines Corporation, 2021; Analysis ANN, 2020).

The assessment for reflective measurement model of Internal Consistency Reliability using SmartPLS 4.1 is run for (i) Cronbach's alpha (α) to measure internal consistency of data for this study, provides an estimate of reliability based on inter-correlation of the observed indicators. The authors suggested that the Cronbach's alpha (α) for greater than 0.7 is good from the range between 0 to 1, as it indicates the study is reliable (Qalati et al., 2021). Where Arilaha, Fahri, and Buamonabot (2021) indicated that Cronbach's alpha for variable greater than 0.6 is declared as reliable. A study from Qalati et al. (2021) suggested that the study should also include another analyse named (ii) Composite Reliability (CR), the analyse required CR values should greater than 0.70 for demonstrating a high reliability of the findings and data are suitable for further investigation. Whereas, Ramayah, Cheah, Chuah, Ting, and Memon (2018) suggested that the acceptable values for composite

reliability are *(i) values greater than 0.60 (CR > 0.6) are acceptable in exploratory research*, (ii) *values between 0.70 to 0.90 (CR > 0.7-0.9) can be regarded as satisfactory*, and *(iii) values of greater than 0.90 (CR > 0.90) are not desirable because it indicates that all the indicators are measuring the same phenomenon and are unlikely to constitute valid reliability assessment of a construct*.

Continue with Convergent Validity (CV) that test with SmartPLS 4.1 for demonstrating to which individual indicators reflect a construct converging in comparison to indicators measuring other constructs (Qalati et al., 2021). The index for this test is known as Average Variance Extracted (AVE), a degree to which a latent construct explains the variance of its indicators. The authors suggested that to achieve with adequate convergent validity, each construct should account for at least 50% of the assigned indicators' variance, AVE ≥ 0.50 (Ramayah et al., 2018).

Lastly, a Discriminant Validity test using SmartPLS 4.1 on Fornell and Larcker's (1981) criterion is conducted, where a latent variable should demonstrate a better explanation of the variance in its own indicators compared to other latent variables. This criterion involves ensuring that the Average Variance Extracted (AVE) of a latent variable exceeds the squared correlation between that variable and all others, or that the square root of the AVE on the diagonal surpasses the correlation on the off-diagonal (Ramayah et al., 2018). This analysis will be carried out twice, primarily for the first-order model and subsequently for the second-order model following the approach outlined by Qalati et al. (2021).

An assessment for this study on formative measurement model in this part employed PLS-SEM algorithm using SmartPLS 4.1 to test hypothesised model as per suggested by Qalati et al. (2021), and Bagheri et al. (2019). Based on Ramayah et al. (2018) PLS-SEM is created for predictive aims, it is valuable in maximising the explained variance of independent variables relative to dependent variables. Based on the rationale from the authors, the data analysis for this study is suitable to adopt on full collinearity approach for modal analysis, specifically the Variance Inflation Factor (VIF) to detect common method bias. Ramayah, Cheah, Chuah, Ting, and Memon (2018) also disclosed that there are two widely accepted rules of thumb for VIF, *(i) VIF 5 or higher indicates a potential issue with collinearity problem* as suggested by Hair, Sarstedt, Ringle, and Gudergan (2024); Hair, Ringle, and Sarstedt (2022); and Hair, Ringle, and Sarstedt (2011), and *(ii) VIF 3.3 or higher indicates a potential issue with collinearity problem* as suggested by Diamantopoulos and Siguaw (2006). Qalati et al. (2021) suggested VIF of less than 5 indicates that the common method bias is not a key concern, as the authors adopted rule of thumb from Hair et al. (2024) who stated VIF for 5 or higher indicates a potential issue with collinearity problem.

3.6.4.2 Evaluation of the Structural Model

The evaluation of structural model involved examination of path coefficient values involves standardisation within a range from -1 to +1, where coefficients closer to +1 denote strong positive relationships, and coefficients closer to -1 indicate strong negative relationships. While coefficients near +1 or -1 are typically statistically significant, the significance must be validated through bootstrapping to ascertain a path coefficient of at least 0.05 significance level (Ramayah et al., 2018). The study from Qalati et al. (2021) is based on criterion for $t\text{-value} \geq 1.96$ and $p\text{-value} < 0.05$ as shown in Table 3.7. The following

Table 3.7 shows the significant levels of path coefficient from Ramayah et al. (2018); this information is served as a guideline for the data analyses for this study.

Table 3.7: Significant Levels of Path Coefficient

Name of Index	Level of Acceptance
Path Coefficient	*p-value* < 0.01 *t-value* > *2.58 (two-tailed)* *t-value* > *2.33 (one-tailed)* *p-value* < *0.05* *t-value* > *1.96 (two-tailed)* *t-value* > *1.645 (one-tailed)* *p-value* < *0.10* *t-value* > *1.645 (two-tailed)* *t-value* > *1.28 (one-tailed)*

Source: Ramayah et al. (2018)

This study also employed assessment of Goodness-of-Fit (GoF) for model fit measures using Standardized Root Mean Square Residual (SRMR) from SmartPLS 4.1, as a key metric to assess the absolute mean value of covariance residuals (Qalati et al., 2021). The SRMR transforms both the sample covariance matrix and the predicted covariance matrix into correlation matrices, providing a measure of the disparity between observed and expected correlations as a model fit criterion. Typically, a value below 0.10 or 0.08 (SRMR ≤ 0.08) signifies a good fit and a value of 0 indicates a perfect fit, aiding in the identification and rectification of potential model misspecification (Ramahyah et al., 2018).

This study evaluated the significance and relevance of the structural model relationships utilising the PLS bootstrapping procedure from SmartPLS 4.1. This method involves drawing a large number of subsamples, with replacement, from the original sample to calculate bootstrap standard errors, enabling the determination of approximate t-values for testing the significance of the structural path. The bootstrap results also help approximate

the normality of the data, allowing the calculation of standard errors used in t-value computations and mitigating issues related to non-normality. As recommended by Qalati et al. (2021), and Ramayah et al. (2018) employing 5000 bootstraps is advisable to ensure robustness. Prior studies have suggested the use of the Percentile Method to construct confidence intervals for parameters, generally assuming a symmetrical bootstrap distribution (normal distribution) by default in the system settings.

The model's predictive accuracy is assessed using the Coefficient of Determination (R^2) within SmartPLS 4.1, as suggested by Qalati et al. (2021). R^2 signifies the variance in the endogenous construct elucidated by all connected exogenous constructs, ranging between 0 and 1. Higher values denote greater predictive accuracy (Ramayah et al., 2018). Typically, there are three benchmarks for acceptable R^2, detailed in Table 3.8. Research by Qalati et al. (2021) shows R^2 values of 0.60 (substantial), 0.33 (moderate), and 0.19 (weak), aligning with findings by Chin (2010). The following Table 3.8 shows the rules of thumbs for an acceptable R^2 from Ramayah et al. (2018); this information is served as a guideline for the data analyses for this study.

Table 3.8: Rules of Thumbs for an Acceptable R^2

Name of Index	Level of Acceptance	Literature Support
Coefficient of Determination, R^2	0.26 – Substantial 0.13 – Moderate 0.02 – Weak	(Cohen, 1989)
	0.67 – Substantial 0.33 – Moderate 0.19 – Weak	(Chin, 2010)
	0.75 – Substantial 0.50 – Moderate 0.25 – Weak	(Hair et al., 2017)

Source: Ramayah et al. (2018)

This study evaluated the predictive relevance of the path model using Stone-Geisser's Q^2 Predictive Relevance (Q^2) method. This technique, commonly employed to assess predictive relevance, is calculated through the blindfolding procedure, available in SmartPLS 4.1. The blindfolding procedure involves systematically omitting and predicting each data point from the reflective measurement model's indicators of the endogenous construct (Ramayah et al., 2018). It's specifically applied to endogenous constructs with reflective measurement model specifications. If the predictions closely align with the original values with minimal prediction error, it indicates a high level of predictive accuracy for the path. Qalati et al. (2021) suggested utilizing the Cross-Validated Redundancy (CVR) approach, employing the path model to estimate the structural model. Both Qalati et al. (2021) and Ramayah et al. (2018) proposed that values exceeding 0 indicate predictive relevance of the exogenous constructs for the endogenous construct.

3.7 Chapter Summary

This chapter delves into the vital role of SMEs within Sarawak, with a particular focus on service sector. It emphasised on SMEs' substantial impact on the state's economic contribution, highlighting the complex interplay between technological factors, organisational factors, and environmental factors with technology adoption. The study focuses on the TOE framework's application, aiming to analyse factors influencing technology adoption by SMEs in Sarawak. This study used SmartPLS 4.1 to analyse large amounts of data and run statistical tests. The goal is to confirm the model and find out how technological factors, organisational factors, and environmental factors affect the performance of SMEs in both financial and non-financial aspect. A mediating effect on technology adoption was included for a more comprehensive study. Ultimately, the research

seeks to provide valuable insights for policymakers and practitioners, aiding in the formulation of strategies to foster SMEs growth and economic development.

CHAPTER 4

RESULTS AND DISCUSSION

4.0 Introduction

This chapter covered a pilot test conducted with 30 SMEs in the Sarawak service sector to reconfirm the validity of the questionnaire. Frequencies, multiple responses, and other descriptive data for general information (Part A of the questionnaire) were analyzed using descriptive analysis, with descriptive statistics conducted using SPSS Version 29. Numerous tests, including the KMO and Bartlett's test (SPSS), Cronbach's alpha, composite reliability, convergent validity, discriminant validity, and VIF, were used to evaluate the measurement model using SmartPLS 4.1. On the other hand, the structural model was evaluated using a variety of techniques, including blindfolding, bootstrapping, and path analysis, all conducted using SmartPLS 4.1. Finally, the chapter concluded with a summary and discussion of the study based on the data analyses.

4.1 Pre-test

For creating the questionnaire, questions were adopted or adapted from various established, reliable sources and previous studies by reputable researchers (SME Corporation Malaysia, 2023; Yadegaridehkordi et al., 2023; Zhong & Hee, 2023; Dadhich & Hiran, 2022; Lee & Voon, 2022; Mujahed et al., 2022; Nguyen et al., 2022; Rogers, 2022; Mustafa et al., 2021; Qalati et al., 2021; Abed, 2020; Ahmad & Jamil, 2020; Akbar, 2020; Lim & Park, 2020; Disu & Yo, 2018; Jia et al., 2017; Yoon et al., 2016; Ainin et al., 2015; Wang et al., 2010; Wu et al., 2003; El-Shishini, 2001). To ensure reliable validation of the questionnaire to be used in this study, all the scales and elements were assessed by six

industry experts (labeled as R1, R2, R3, R4, R5, and R6) with relevant backgrounds in testing accuracy and content. Table 4.1 provides a summary of the industry experts and their relevant backgrounds for this study. A complete list of industry experts is available in Appendix C.

Table 4.1: Summary of Background Relevancy for Industry Expert with Main Study

Item	Relevant to Comment-on
R1	TOE, SMEs, Finance, Non-finance, Technology Adoption
R2	TOE, SMEs, Finance, Non-finance, Technology Adoption
R3	TOE, SMEs, Technology Adoption
R4	TOE, SMEs, Finance, Non-finance, Technology Adoption
R5	TOE, SMEs, Finance, Non-finance, Technology Adoption
R6	TOE, SMEs, Finance, Non-finance, Technology Adoption, Assessed on questionnaire sensitivity for private and confidential purposes

Based on the overall feedback from the industry experts, they recommended two questions in Part A (General Information) for improvement. Firstly, question A5, which asks about *"components of SME in the services sector,"* is advised to paraphrase *"What is the nature of your business?"* and question A10 is advised to paraphrase *"Types of Technology Adopted"* to *"Please indicate which type of technology your company adopted*" and allow respondents to choose multiple answers (more than one answer) as shown in Table 4.2. A full summary of the pre-test is available in Appendix C.

Table 4.2: Summary from Pre-test with Amendment

Item	Original Question(s)	Comment(s)	Changes
A5	Component of SME in Services Sector	- What is the nature of your business?	Yes
A10	Types of Technology Adopted	- Please indicate which type of technology your company adopted: - You may choose more than ONE (1) answer	Yes

4.2 Pilot Test

To confirm the accuracy and reliability of the questions as adapted from previous study, this study conducted a pilot test using a questionnaire as instrument validation, following previous studies' guidelines (Qalati et al., 2021; Bagheri et al., 2019). This study conducted the pilot test with a smaller group of selected respondents. The total sample size in this study is 150 SMEs, and therefore a sample size of 30 SMEs was selected from the SME Corporation Malaysia's listing from other Division, except Kuching in the Sarawak service sector according to the common rule of thumb of 20%, which means the 150 targeted SMEs are excluded from the pilot test (Nordin, 2023; Mujahed et al., 2021).

4.2.1 Demographic Statistics of Respondents and SMEs for Pilot Test

The demographic information collected from respondents for the pilot test is shown in Table 4.3. Out of 30 respondents, 18 (60%) were male, and 12 (40%) were female. The results also show that the majority of SME representatives were aged between 26 and 35 years (13 respondents or 43.3%), followed by those aged between 36 and 45 years (7 respondents or 23.3%), those aged under 25 years (6 respondents or 20%), those aged between 46 and 55 years (3 respondents or 10%), and finally, those aged above 56 years (1 respondent or 3.3%). In terms of education level, 23 respondents (76.7%) reported holding an undergraduate qualification, 5 respondents (16.7%) reported holding a basic or secondary school qualification, 1 respondent (3.3%) reported holding a master’s degree, and 1 respondent (3.3%) reported holding a PhD or doctorate. The majority of the SME representatives who participated in this study were managers, with 13 respondents (43.3%), followed by 11 respondents (36.7%) who were owners or directors, and 6 respondents (20%) who were executives.

Table 4.3: Demographic Information for Respondents (Pilot Test)

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	18	60.0	60.0	60.0
	Female	12	40.0	40.0	100.0
Age (years)	Less than 25	6	20.0	20.0	20.0
	26 - 35	13	43.3	43.3	63.3
	36 - 45	7	23.3	23.3	86.7
	46 - 55	3	10.0	10.0	96.7
	Above 56	1	3.3	3.3	100.0
Education Level	Basic/ Secondary	5	16.7	16.7	16.7
	Undergraduate	23	76.7	76.7	93.3
	Master's	1	3.3	3.3	96.7
	PhD/ Doctorate	1	3.3	3.3	100.0
	Other	-	-	-	-
Position	Owner/ Director	11	36.7	36.7	36.7
	Executive	6	20.0	20.0	56.7
	Manager	13	43.3	43.3	100.0

Table 4.4 shows the demographic information from SMEs in the pilot test. Based on the analysis, out of 30 SMEs, 12 SMEs (40%) are categorized under the nature of business as *wholesale and retail, food and beverage and accommodation*; 8 SMEs (26.7%) are categorised as both *utilities, transportation, information, and communication,* and *finance and insurance, real estate, and business service*; 1 SME (3.3%) is categorised as *government services*; and 1 SME (3.3%) is categorised as *other* for education related services. The types of business entities for pilot test in this study are mainly *sole proprietorships* with 14 SMEs (46.7%), follow-by *partnerships* with 10 SMEs (33.3%), *private limited companies* with 5 SME (16.7%), and *limited liability partnerships* with 1 SME (3.3%). The duration in operation for SMEs involved in this pilot this including 12 SMEs (40%) were operated for *2 to 4 years*, 11 SMEs (36.7%) were operated for *less than 2 years*, 4 SMEs (13.3%) were operated for *5 to 7 years*, 10 SMEs (6.7%) were operated for *more than 10 years*, and 1 SME (3.3%) were operated for *8 to 10 years*. There are 16 SMEs (53.3%) are categorised as

microenterprise (0 to 4 employees), 10 SMEs (33.3%) are categorised as *small enterprises* (5 to 29 employees), and 4 SMEs (13.3%) are categorised as *medium enterprises* in the pilot test. On the other hand, 25 SMEs (83.3%) claimed their annual sales were less than RM300,000 categorised as *microenterprise*, 1 SMEs (3.3%) claimed their annual sales were between RM300,000 and RM3 million categorised as *small enterprises*, and 4 SMEs (13.3%) claimed their annual sales were between RM3 million and RM20 million categorised as *medium enterprises*. Based on SME Corporation Malaysia (2021), if a business fulfils either one of the of the criteria across the different sizes of operation, then the smaller size will be applicable. Therefore, this study used annual sales as a guideline for the categorisation of SMEs.

Table 4.4: Demographic Information from SMEs (Pilot test)

		Frequency	Percent	Valid Percent	Cumulative Percent
Nature of Business	Utilities, Transportation, Information and Communication	8	26.7	26.7	26.7
	Wholesale and Retail, Food and Beverage and Accommodation	12	40.0	40.0	66.7
	Finance and Insurance, Real Estate and Business Service	8	26.7	26.7	93.3
	Government Service	1	3.3	3.3	96.7
	Others services	1	3.3	3.3	100.0
Type of Business Entity	Sole Proprietorship	14	46.7	46.7	46.7
	Partnership	10	33.3	33.3	80.0
	Limited Liability Partnership (LLP)	1	3.3	3.3	83.3
	Private Limited Company (S/B)	5	16.7	16.7	100.0
Duration in Operation	Less than 2 years	11	36.7	36.7	36.7
	2 to 4 years	12	40.0	40.0	76.7
	5 to 7 years	4	13.3	13.3	90.0
	8 to 10 years	1	3.3	3.3	93.3
	More than 10 years	2	6.7	6.7	100.0

Table 4.4: Demographic Information from SMEs (Pilot test) (continue)

Number of Employees	0 – 4 (Micro)	16	53.3	53.3	53.3
	5 – 29 (Small)	10	33.3	33.3	86.7
	30 – 75 (Medium)	4	13.3	13.3	100.0
Annual Sales	Less than RM300,000	25	83.3	83.3	83.3
	RM300,000 – RM3 Millions	1	3.3	3.3	86.7
	RM3 Millions – RM20 Millions	4	13.3	13.3	100.0

In the pilot test for this study, respondents were allowed to choose more than one answer for the types of technology adopted (Table 4.5). Therefore, a multiple-response test is run using SPSS version 29 for frequencies purposes. Based on the data collected from respondents, *social media* are the most adopted technology by SMEs with 26 responses, follow-by *cloud computing* with 25 responses, *big data analytics* with 13 responses, *enterprise resource planning* (ERP) with 8 responses, as well as both *e-commerce* and *financial technology* with 7 responses respectively.

Table 4.5: Multiple-Reponse on Types of Technology Adopted (Pilot Test)

		Responses		**Percent of Cases**
		N	**Percent**	
Types of Technology Adopted	Cloud Computing	25	29.1%	83.3%
	Social Media	26	30.2%	86.7%
	E-commerce	7	8.1%	23.3%
	Financial Technology	7	8.1%	23.3%
	Enterprise Resource Planning	8	9.3%	26.7%
	Big Data Analytic	13	15.1%	43.3%
	Total	**86**	**100.0%**	**286.7%**

The duration of technology adoption for SMEs on pilot test is shows in Table 4.6, there are 14 SMEs (46.7%) adopted technology for 13 to 24 months, 8 SMEs (26.7%) adopted technology for 25 to 36 months, 7 SMEs (23.3%) adopted technology for less than 12 months, 1 SME (3.3%) adopted technology for more than 60 months.

Table 4.6: Duration of Technology Adoption (Pilot Test)

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 12 months (1 year)	7	23.3	23.3	23.3
13 to 24 months (2 years)	14	46.7	46.7	70.0
25 – 36 months (3 years)	8	26.7	26.7	96.7
37 to 60 months (5 years)	1	3.3	3.3	100.0

The results on the category of technology adoption in the pilot test demonstrated that 10 SMEs (33.3%) categorize themselves as early adopters of technology, 9 SMEs (30%) categorize themselves as part of the early majority, 6 SMEs (20%) classify themselves as laggards in technology adoption, 4 SMEs (13.3%) categorize themselves as part of the late majority, and 1 SME (3.3%) categorizes itself as an innovator in technology adoption. This information was collected to understand the general behavior of SMEs in technology adoption, as shown in Table 4.7.

Table 4.7: Category of Technology Adoption (Pilot Test)

	Category of Technology Adoption				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Innovator	1	3.3	3.3	3.3
	Early Adopter	10	33.3	33.3	36.7
	Early Majority	9	30.0	30.0	66.7
	Late Majority	4	13.3	13.3	80.0
	Laggard	6	20.0	20.0	100.0
	Total	**30**	**100**	**100**	

4.2.2 Descriptive Statistics for Pilot Test

Based on the descriptive statistics for the pilot test, as shown in Table 4.8, all respondents' answers were valid, and there were no missing values throughout the study. This indicates that all respondents answered every question in the survey. The mean for each variable in this study is consistent. Specifically, the mean for the independent variables is as

follows: technological factors (T) is 4.0000, organisational factors (O) is 3.5611, and environmental factors (E) is 3.5548. For the dependent variables, the mean for financial performance (FP) is 3.5471, and for non-financial performance (NFP) it is 3.7778. Additionally, the mean for the mediator, technology adoption, is 4.0833.

The overall mean for this study is generally above 3.5, indicating that most respondents ranked the technological factors, organisational factors, environmental factors, and mediator on technology adoption with 3 (neutral), 4 (agree), or 5 (strongly agree). Similarly, financial performance and non-financial performance were ranked with 3 (neutral), 4 (better), or 5 (much better). The standard deviation for this study is relatively small across all variables. Specifically, the standard deviation for the independent variables is as follows: technological factors is 0.7529, organisational factors is 0.8591, and environmental factors is 0.8593. For the dependent variables, the standard deviation for financial performance is 0.9142, and for non-financial performance, it is 0.7232. The standard deviation for the mediator, technology adoption, is 0.7749. This suggests that the standard deviations are close to the mean, with one standard deviation indicating a relatively small spread around the mean.

Table 4.8: Descriptive Statistics (Pilot Test)

		T	O	E	FP	NFP	TA
N	**Valid**	30	30	30	30	30	30
	Missing	0	0	0	0	0	0
Minimum		1.00	1.00	1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00
Mean		4.0000	3.5611	3.5548	3.5471	3.7778	4.0833
Std. Deviation		0.7529	0.8591	0.8593	0.9142	0.7232	0.7749
Number of Questions		14	12	14	4	6	4

4.2.3 Evaluation of the Measurement Model for Pilot Test

For the purposes of pilot testing and data validation, an evaluation of the model in accordance with the study by Qalati et al. (2021) was carried out. This study applied a reflective-formative construct for technology adoption. Hence, the data validation in this study was analyzed using SPSS Version 29 by examining the Kaiser-Meyer-Olkin (KMO) and Bartlett's test, and reflective measurement from SmartPLS 4.1, focusing on Cronbach's alpha, Composite Reliability, Convergent Validity, and Discriminant Validity using Fornell and Larcker's (1981) criterion. Formative measurement was assessed using SmartPLS 4.1 for the Collinearity on Variance Inflation Factor (VIF).

4.2.3.1 Kaiser-Meyer-Olkin (KMO) & Bartlett's Test for Pilot Test

The results of the KMO and Bartlett's test for the pilot test are shown in Table 4.9. The KMO scores for all the variables in this study exceeded the acceptable threshold of 0.50, with technological factors scoring 0.731, organisational factors scoring 0.759, environmental factors scoring 0.827, financial performance scoring 0.568, non-financial performance scoring 0.794, and technology adoption scoring 0.738. These results indicate that all variables are suitable for explanatory factor analysis (EFA). According to Bagheri et al. (2019), KMO results between 0.50 and 0.90 are considered reliable. Furthermore, the results for technological factors, organisational factors, environmental factors, financial performance, non-financial performance, and technology adoption in Bartlett's test were all significant at less than 0.001 (below the 0.05 significance level), indicating that this study is suitable for conducting factor analysis. These findings align with the outcomes from studies by Qalati et al. (2021) and Bagheri et al. (2019).

Table 4.9: Kaiser-Meyer-Olkin (KMO) & Bartlett's Test for Pilot Test

	KMO	Bartlett's Test
Technological Factors	0.731	<.001
Organisational Factors	0.759	<.001
Environmental Factors	0.827	<.001
Financial Performance	0.568	<.001
Non-financial Performance	0.794	<.001
Technology Adoption	0.738	<.001

4.2.3.2 Construct Reliability and Validity for Pilot Test

Table 4.10 demonstrates the construct reliability and validity for the pilot test on the first-order model. The Cronbach's alpha values for the constructs are as follows: technological factors is 0.812 (relative advantage is 0.740, compatibility is 0.941, and complexity is 0.813), organisational factors is 0.862 (firm size is 0.907, top management support is 0.939, and financial resources is 0.907), environmental factors is 0.878 (competitive pressure is 0.775, customer pressure is 0.881, and government support is 0.947), financial performance is 0.789, non-financial performance is 0.867, and technology adoption is 0.797. According to Qalati et al. (2021), a Cronbach's alpha greater than 0.7 is considered good, indicating that the study is reliable.

The Composite Reliability (CR) values for the constructs are as follows: technological factors is 0.889 (relative advantage is 0.838, compatibility is 0.953, and complexity is 0.878), organisational factors is 0.916 (firm size is 0.942, top management support is 0.952, and financial resources is 0.942), environmental factors is 0.925 (competitive pressure is 0.847, customer pressure is 0.918, and government support is 0.959), financial performance is 0.842, non-financial performance is 0.897, and technology adoption is 0.868. According to Qalati et al. (2021) and Bagheri et al. (2019), Composite Reliability

values greater than 0.70 demonstrate high reliability, indicating that the findings and data are suitable for further investigation.

The Convergent Validity (Average Variance Extracted or AVE) values for the constructs are as follows: technological factors is 0.728 (relative advantage is 0.566, compatibility is 0.771, and complexity is 0.642), organisational factors is 0.785 (firm size is 0.843, top management support is 0.768, and financial resources is 0.843), environmental factors is 0.805 (competitive pressure is 0.531, customer pressure is 0.737, and government support is 0.825), financial performance is 0.582, non-financial performance is 0.597, and technology adoption is 0.625. According to Qalati et al. (2021) and Ramayah et al. (2018), AVE values greater than 0.5 indicate that this study has achieved adequate convergent validity.

Table 4.10: Construct Reliability and Validity for First-Order Model (Pilot Test)

	Cronbach's alpha	**Composite Reliability**	**AVE**
Technological	**0.812**	**0.889**	**0.728**
Relative Advantage	0.740	0.838	0.566
Compatibility	0.941	0.953	0.771
Complexity	0.813	0.878	0.642
Organisational	**0.862**	**0.916**	**0.785**
Firm Size	0.907	0.942	0.843
Top Management Support	0.939	0.952	0.768
Financial Resources	0.907	0.942	0.843
Environmental	**0.878**	**0.925**	**0.805**
Competitive Pressure	0.775	0.847	0.531
Customer Pressure	0.881	0.918	0.737
Government Support	0.947	0.959	0.825
Financial Performance	**0.789**	**0.842**	**0.582**
Non-Financial Performance	**0.867**	**0.897**	**0.597**
Technology Adoption	**0.797**	**0.868**	**0.625**

Table 4.11 demonstrates the construct reliability and validity for the pilot test on second-order model. Based on the results generated for Cronbach's alpha for technological-organisational-environmental factors (TOE) is 0.922, financial performance (FP) is 0.789, non-financial performance (NFP) is 0.867, and technology adoption is 0.797. Based on Qalati et al. (2021), Cronbach's alpha for greater than 0.7 is good in the range between 0 to 1, which indicates the study is reliable. The Composite Reliability technological-organisational-environmental factors (TOE) is 0.930, financial performance (FP) is 0.840, non-financial performance (NFP) is 0.867, and technology adoption is 0.797. According to Qalati et al. (2021) and Bagheri et al. (2019), the composite reliability is required to be greater than 0.70 to demonstrate the high reliability of the findings and data that are suitable for further investigation. The Convergent Validity (AVE) for technological-organisational-environmental factors (TOE) is 599, financial performance (FP) is 0.580, non-financial performance (NFP) is 0.598, and technology adoption is 0.624. According to Qalati et al. (2021) and Ramayah et al. (2018), variables greater than 0.5 indicate that this study has achieved adequate convergent validity.

Table 4.11: Construct Reliability and Validity for Second-Order Model (Pilot Test)

	Cronbach's alpha	**Composite Reliability**	**AVE**
TOE	0.922	0.930	0.599
FP	0.789	0.840	0.580
NFP	0.867	0.898	0.598
TA	0.797	0.868	0.624

The discriminant validity using the Fornell and Larcker's (1981) Criterion for pilot test demonstrated the AVE for this study generally is greater than other variables as shown in Table 4.12 and Table 4.13. Both the first- and second-order models demonstrated that the discriminant validity are exceed the squared correlation between that variable and all others,

or that the square root of the AVE on the diagonal surpasses the correlation on the off-diagonal. The discriminant validity's AVE on first-order model (Table 4.12) analyses for compatibility (CP) is 0.878, competitive pressure (CPP) is 0.729, customer pressure (CS) is 0.859, complexity (CX) is 0.802, environmental factors (E) is 0.897, financial performance (FP) is 0.763, financial resources (FR) is 0.862, firm size (FS) is 0.918, government support (GS) is 0.908, non-financial performance (NFP) is 0.773, organisational factors (O) is 0.886, relative advantage (RA) is 0.752, technological factors (T) is 0.853, technology adoption (TA) is 0.790, and top management support (TS) is 0.877.

Table 4.12: Discriminant Validity for First-Order Model (Pilot Test)

	CP	CPP	CS	CX	E	FP	FR	FS	GS	NFP	O	RA	T	TA	TS
CP	**0.878**														
CPP	0.481	**0.729**													
CS	0.423	0.803	**0.859**												
CX	0.646	0.555	0.622	**0.802**											
E	0.472	0.909	0.934	0.628	**0.897**										
FP	0.423	0.148	0.204	0.097	0.311	**0.763**									
FR	0.467	0.633	0.640	0.449	0.756	0.601	**0.862**								
FS	0.385	0.361	0.381	0.226	0.386	0.271	0.240	**0.918**							
GS	0.370	0.646	0.729	0.562	0.865	0.473	0.764	0.306	**0.908**						
NFP	0.633	0.635	0.637	0.351	0.664	0.556	0.503	0.706	0.510	**0.773**					
O	0.749	0.682	0.575	0.653	0.703	0.519	0.786	0.481	0.655	0.624	**0.886**				
RA	0.672	0.508	0.276	0.515	0.373	0.266	0.315	0.353	0.256	0.485	0.695	**0.752**			
T	0.903	0.588	0.499	0.817	0.558	0.319	0.472	0.379	0.448	0.578	0.811	0.859	**0.853**		
TA	0.716	0.495	0.235	0.461	0.346	0.247	0.229	0.419	0.223	0.551	0.670	0.807	0.775	**0.790**	
TS	0.572	0.567	0.428	0.520	0.565	0.424	0.660	0.402	0.545	0.452	0.939	0.599	0.653	0.586	**0.877**

On the other hand, the discriminant validity's AVE on second-order model (Table 4.13) analyses shows the financial performance (FP) is 0.761, non-financial performance (NFP) is 0.773, technology adoption (TA) is 0.790, and technological-organisational-environmental factors (TOE) is 0.774.

Table 4.13: Discriminant Validity for Second-Order Model (Pilot Test)

	FP	NFP	TA	TOE
FP	**0.761**			
NFP	0.552	**0.773**		
TA	0.246	0.556	**0.790**	
TOE	0.412	0.689	0.761	**0.774**

4.2.3.3 Variance Inflation Factor

Based on the pilot test results for first order analyses shows in Table 4.14, the inner model VIF for this study from technology (T) to technology adoption (TA) is 2.866 forming from relative advantage (RA) to technology (T) is 2.269, compatibility (CP) to technology (T) is 2.916, and complexity (CX) to technology (T) is 2.174. Where, the inner model VIF for organisational factors (O) to technology adoption (TA) is 3.883 forming from firm size (FS) to organisational factors (O) is 1.353, top management support (TS) to organisational factors (O) is 2.407, and financial resources (FR) to organisational factors (O) is 1.979. Then, the inner model VIF for environmental factors (E) to technology adoption (TA) is 3.883 forming from competitive pressure (CPP) to environmental factors (E) is 3.075, customer pressure (CS) to environmental factors (E) is 4.114, and government support (GS) to environmental factors (E) is 2.933. Both inner model VIF for technology adoption (TA) to financial performance (FP) and non-financial performance (NFP) is 1.000. The result indicates that there is no potential issue (below VIF 5) with collinearity accordance to Qalati et al. (2021) and Hair et al. (2011).

Table 4.14: Inner Model VIF for First-Order Model (Pilot Test)

	VIF
T →TA	**2.866**
RA → T	2.269
CP → T	2.916
CX → T	2.174
O → TA	**3.883**
FS → O	1.353
TS → O	2.407
FR -> O	1.979
E → TA	**1.978**
CPP → E	3.075
CS → E	4.114
GS → E	2.933
TA → FP	**1.000**
TA → NFP	**1.000**

Based on the pilot test results for second order analyses (Table 4.15), the inner model VIF for this study from TOE to technology adoption (TA) is 1.000. Where, the inner model VIF for technology adoption (TA) to financial performance (FP) is 1.000, and technology adoption (TA) to non-financial performance (NFP) is also 1.000. The result indicates that there is no potential issue (below VIF 3.3) with collinearity accordance to Qalati et al. (2021) and Diamantopoulos and Siguaw (2006).

Table 4.15: Inner Model VIF for Second-Order Model (Pilot Test)

	VIF
TOE → TA	1.000
TA → FP	1.000
TA → NFP	1.000

4.2.4 Evaluation of the Structural Model for Pilot Test

The structural model for the pilot test was evaluated using path analysis, which included path coefficient analysis (for hypothesis testing), Goodness-of-Fit (GoF) assessment, bootstrapping for the Coefficient of Determination (R^2), and the Stone-Geisser Q^2 predictive relevance (Q^2) using a blindfolding procedure. The tests were conducted for both first- and second-order models, following the methodology outlined in the studies by Qalati et al. (2021).

4.2.4.1 Hypotheses Testing

The following Table 4.16 demonstrated the path coefficient and hypotheses testing for pilot test on direct relationship for H_1, H_2, H_3, H_4 and H_5, based on the results as generated from first-order model for pilot test on the path coefficient. The results indicated that all the results for H_1, H_2, H_3, H_4 and H_5 are supported (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). The path coefficient for H_1 on T to TA is 0.666, where sub-dimension for RA to T is 0.431, CP to T is 0.408, and CX to T is 0.319. The path coefficient for H_2 on O to TA is 0.463, where sub-dimension for FS to O is 0.359, TS to O is 0.365, and FR to O is 0.353. The path coefficient for H_3 on E to TA is 0.265, where sub-dimension for CPP to E is 0.352, CS to E is 0.344, and GS to E is 0.340. The p-value for H_1 is 0.008 and its sub-dimension is 0, for H_2 is 0.034 and its sub-dimension is 0, for H_3 is 0.038 and its sub-dimension is 0, for H_4 is 0, as well as H_5 is 0. This results indicated that all the variables are significant at less than 0.05. Other information included in the test including mean for H_1 is 0.657, H_2 is 0.455, H_3 is 0.254, H_4 is 0.741, and H_5 is 0.595, with a low standard deviation for H_1 is 0.252, H_2 is 0.218, H_3 is 0.128, H_4 is 0.055, and H_5 is 0.105 this indicates the data

are reliable as they are close to the mean. As a result, the hypotheses are supported for H_1, H_2, H_3, H_4 and H_5.

Table 4.16: Hypotheses Testing for Pilot Test (First-Order Model)

		Path Coefficient	Mean	SD	T statistics	P values	Decision
H_1	**T → TA**	0.666	0.657	0.252	2.644	0.008	Supported
	RA →T	0.431	0.431	0.035	12.206	0.000	Supported
	CP → T	0.408	0.407	0.040	10.113	0.000	Supported
	CX → T	0.319	0.310	0.045	7.127	0.000	Supported
H_2	**O → TA**	0.463	0.455	0.218	2.125	0.034	Supported
	FS → O	0.359	0.358	0.008	45.284	0.000	Supported
	TS → O	0.365	0.364	0.011	33.581	0.000	Supported
	FR → O	0.353	0.354	0.008	47.024	0.000	Supported
H_3	**E → TA**	0.265	0.254	0.128	2.073	0.038	Supported
	CPP → E	0.352	0.349	0.008	44.311	0.000	Supported
	CS → E	0.344	0.347	0.011	31.124	0.000	Supported
	GS → E	0.340	0.34	0.006	57.559	0.000	Supported
H_4	**TA → FP**	0.736	0.741	0.055	13.428	0.000	Supported
H_5	**TA → NFP**	0.555	0.595	0.105	5.299	0.000	Supported

Based on the results for path coefficient and hypotheses testing for pilot test on second-order model on pilot test which demonstrated an indirect relationship (mediating effects) as shown in Table 4.17, the path coefficient for H_6 and H_7 are supported. This is because the path coefficient for H_6 is 0.736 and H_7 is 0.836 (greater than 0.7), therefore denoted strong positive relationships (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). On the other hand, H_6, and H_7 are significant at 0 (less than 0.05) (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). Other information included in the test

including mean for H_6 is 0.742, and H_7 is 0.840, with a low standard deviation for H_6 is 0.055, and H_7 is 0.033, this indicated the data are reliable as they are close to the mean.

Table 4.17: Hypotheses Testing for Pilot Test (Second-Order Model)

		Path Coefficient	Mean	SD	T statistics	P values	Decision
H_6	**TOE → TA → FP**	0.736	0.742	0.055	13.456	0.000	Supported
H_7	**TOE → TA → NFP**	0.836	0.840	0.033	25.403	0.000	Supported

4.2.4.2 Goodness-of-Fit

Based on Table 4.18, the SRMR for first-order model (direct relationship) in pilot test is 0.030 which signifies a good fit for the model (SRMR ≤ 0.08) (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). The squared euclidean distance (d_ULS) is 4.245, according to Ramayah et al. (2018) the value should be greater than 0.05 to establish a model fit.

Table 4.18: Model Fit for First-Order Model (Pilot Test)

SRMR	d_ULS	d_G	Chi-square	NFI
0.030	4.245	N/A	Infinite	N/A

Based on Table 4.19, the SRMR for second-order model (indirect relationship) pilot test is 0.041 which is below 0.08, and this signifies a good fit for the model (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). The squared euclidean distance (d_ULS) is 5.524, and the geodesic distance (d_G) is 6.931, according to Ramayah et al. (2018) the values should be greater than 0.05 to establish a model fit. The Normal Fit Index (NFI) for this study is 0.966, where an NFI that is close to 1 means a good fit (Smeulders, Crama, & Spieksma, 2019).

Table 4.19: Model Fit for Second-Order Model (Pilot Test)

SRMR	d_ULS	d_G	Chi-square	NFI
0.041	5.524	6.931	570.042	0.966

4.2.4.3 Structural Model

The R^2 values obtained from the first-order model during the pilot test are summarized in Table 4.20, the R^2 for technological factors (T) is 0.999 with R^2 adjusted is 0.999, organisational factors (O) is 0.937 with R^2 adjusted is 0.930, and environmental factors (E) is 0.998 with R^2 adjusted is 0.998, these results indicated a substantial result for R^2. Where, the financial performance (FP) is 0.640 with R^2 adjusted is 0.599, non-financial performance (NFP) is 0.308 with R^2 adjusted is 0.284, and technology adoption (TA) is 0.579 with R^2 adjusted is 0.564 which demonstrated a moderate result. On the other hand, based on the second-order model outcomes for this study as shown in Table 4.21, the R^2 for financial performance (FP) is 0.579 with R^2 adjusted is 0.564, non-financial performance (NFP) is 0.309 with R^2 adjusted is 0.284, and technology adoption (TA) is 0.579 with R^2 adjusted is 0.564 which demonstrated a moderate result.

According to the Q^2 from first-order model as shown in Table 4.20 for technological factors (T) is 0.439, organisational factors (O) is 0.531, and environmental factors is 0.573. Where, for financial performance (FP) is 0.368, non-financial performance (NFP) is 0.419, and technology adoption (TA) is 0.368. on the other hand, the Q^2 from second-order model as shown in Table 4.21 for technology adoption (TA) is 0.368, financial performance (FP) is 0.419, and non-financial performance (NFP) is 0.368. Based on Qalati et al. (2021) and Ramayah et al. (2018) the Q^2 values for exceeding 0 indicates predictive relevance of the exogenous constructs for the endogenous construct, therefore as all the Q^2 are greater than 0 it proved the predictive relevance of the inner model for this study.

Table 4.20: Structural Model for First-Order Model (Pilot Test)

	Cross Validated Redundancy			Coefficient of Determination	
	SSO	*SSE*	Q^2 *(=1-SSE/SSO)*	R^2	R^2 *adjusted*
T	90.000	50.522	0.439	0.999	0.999
O	90.000	42.245	0.531	0.937	0.930
E	90.000	38.452	0.573	0.998	0.998
FP	120.000	75.856	0.368	0.640	0.599
NFP	180.000	104.543	0.419	0.308	0.284
TA	120.000	75.856	0.368	0.640	0.599

Table 4.21: Structural Model for Second-Order Model (Pilot Test)

	Cross Validated Redundancy			Coefficient of Determination	
	SSO	*SSE*	Q^2 *(=1-SSE/SSO)*	R^2	R^2 *adjusted*
FP	120.000	75.789	0.368	0.579	0.564
NFP	180.000	104.536	0.419	0.309	0.284
TA	120.000	75.789	0.368	0.579	0.564

4.3 Results

The total sample size of 150 respondents in this study was selected based on a cluster sampling method. All respondents hold top management positions within their respective SMEs, such as owner or director, executive, or manager, and each respondent represents only one SME, as listed by SME Corporation Malaysia (2023). The demographic information and descriptive statistics were analyzed using SPSS Version 29. The evaluation of the measurement model in this study aimed to assess sampling accuracy and ensure data appropriateness for this research. To achieve this, several tests were conducted, including the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity, both performed using SPSS Version 29 (Qalati et al., 2021).

Given that this study employs a reflective-formative construct and uses PLS-SEM for model analysis, the model was evaluated using both the first- and second-order models, as adapted from the data analysis methods of Qalati et al. (2021) and Bagheri et al. (2019). The evaluation of measurement model is also done through assessment for reflective measurement is via PLS-SEM algorithm from SmartPLS 4.1 for (i) Internal Consistency Reliability using both Cronbach's alpha (α) and Composite Reliability (CR), (ii) Convergent Validity (CV) to demonstrate how individual indicators reflect a construct that is converging in comparison to indicators measuring other constructs, the index for this test is known as Average Variance Extracted (AVE), a (iii) discriminant validity test on Fornell and Larcker's (1981) criterion, where this criterion involves the Average Variance Extracted (AVE) (Ramayah et al., 2018). A formative measurement is done through SmartPLS 4.1 for the Collinearity on Variance Inflation Factor (VIF) for the purposes of evaluation for measurement model as well.

On the other hand, the evaluation of the structural model in this study applied a path analysis on path coefficient and Goodness-of-Fit (GoF), bootstrapping on Coefficient of Determination (R^2), and a blindfolding procedure on Stone-Geisser's Q^2 Predictive Relevance **(**Q^2**)** for hypotheses testing purposes, and the test for this part is run based on the first-order model for H_1, H_2, H_3, H_4 and H_5 to demonstrate a direct relationship, and second-order model for H_6 and H_7 to demonstrate an indirect relationship (mediator) in accordance to the studies from Qalati et al. (2021). The evaluation of structural model only applied SmartPLS 4.1 for PLS-SEM algorithm's path analysis, bootstrapping, and blindfolding tests. The analyses for this study are carried out twice, primarily for the first-order model and

subsequently for the second-order model, following an approach as outlined by Qalati et al. (2021).

4.3.1 Descriptive Analysis

The general information in this study is analysed using SPSS Version 29's descriptive analysis specifically frequency test, including gender, age, education level, position, component of SME in the service sector, age of SME in operation, duration of technology adoption for SME, number of employees in SME, annual sales of SME, types of technology adopted, and category of technology adoption. All the test is run with ordinary frequency test, except for types of technology adopted is run as a multi-response frequency test as referred to study from Qalati et al. (2021) and Bagheri et al. (2019).

4.3.1.1 Demographic Statistics of Respondents and SMEs

The general information in this study was analyzed using SPSS Version 29's descriptive analysis, specifically through frequency tests. This included variables such as gender, age, education level, position, component of SME in the service sector, age of SME in operation, duration of technology adoption for SME, number of employees in SME, annual sales of SME, types of technology adopted, and category of technology adoption. All tests were conducted using ordinary frequency tests, except for the types of technology adopted, which were analyzed using a multi-response frequency test, as referenced in studies by Qalati et al. (2021) and Bagheri et al. (2019). The demographic information from respondents (Table 4.22) indicates that out of 150 respondents, 80 (53.5%) were female, and 70 (46.7%) were male. This suggests that women in many SMEs hold significant decision-making authority, possibly more so than men. Additionally, the results show that the

majority of SME representatives were aged between 26 to 35 years (71 respondents or 47.3%), followed by those aged 36 to 45 (35 respondents or 23.3%), those aged less than 25 years (25 respondents or 16.7%), those aged 46 to 55 (14 respondents or 9.3%), and those aged above 56 years (5 respondents or 3.3%). This indicates that many key decision-makers in technology adoption are within the 26 to 35-year age group.

In terms of education level, 120 respondents (80%) held an undergraduate qualification, 15 respondents (10%) had a basic or secondary school qualification, 11 respondents (7.3%) held a master's degree, 3 respondents (2%) had a PhD or doctorate qualification, and 1 respondent (0.7%) held a professional certificate, categorized as "other" in this study. This data reveals that individuals with undergraduate degrees are highly involved in SMEs. Most of the SME representatives participating in this study were managers, with 58 respondents (38.7%), followed by executives with 50 respondents (33.3%). Additionally, 42 respondents were owners or directors who were willing to participate in this study. This analysis provides a clear overview of the demographic characteristics of the respondents, highlighting key trends in gender, age, education, and roles within SMEs. These insights are crucial for understanding the context in which technology adoption decisions are made within SMEs.

Table 4.22: Demographic Information for Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	70	46.7	46.7	46.7
	Female	80	53.3	53.3	100.0
Age (years)	Less than 25	25	16.7	16.7	16.7
	26 - 35	71	47.3	47.3	64.0
	36 - 45	35	23.3	23.3	87.3
	46 - 55	14	9.3	9.3	96.7
	Above 56	5	3.3	3.3	100.0
Education Level	Basic/ Secondary	15	10.0	10.0	10.0
	Undergraduate	120	80.0	80.0	90.0
	Master's	11	7.3	7.3	97.3
	PhD/ Doctorate	3	2.0	2.0	99.3
	Other	1	0.7	0.7	100.0
Position	Owner/ Director	42	28.0	28.0	28.0
	Executive	50	33.3	33.3	61.3
	Manager	58	38.7	38.7	100.0

The following Table 4.23 shows the demographic information from SMEs. Based on the analyses out of 150 SMEs, most of the SMEs are categorised by both nature of business for *wholesale and retail, food and beverage and accommodation*, as well as *finance and insurance, real estate, and business service,* with 49 SMEs (32.7%), respectively. There are another 37 SMEs (24.7%) categorised as *utilities, transportation, information, and communication*; 2 SMEs (1.3%) categorised as *government services;* and 13 SMEs (8.7%) categorised as *other,* which form from photographing services, education-related services, workshop or training service providers, salons, legal consultations, and agricultural consulting services. The result revealed that most of the SMEs in the service sector are formed by the nature of business involved in *wholesale and retail, food and beverage and accommodation* (49 SMEs), *finance and insurance, real estate and business service* (49 SMEs), and *utilities, transportation, information, and communication* (37 SMEs).

The types of business entities in this study are mainly *sole proprietorships* with 68 SMEs (45.3%), follow-by *partnerships* with 42 SMEs (28%), *private limited companies* with 36 SMEs (24%), and *limited liability partnerships* with 4 SMEs (2.7%). This indicates that most SMEs in the service sector are formed by sole proprietorships. The study also revealed that 54 SMEs (36%) were operated for *2 to 4 years*, 38 SMEs (25.3%) were operated for *less than 2 years*, 32 SMEs (21.3%) were operated for *5 to 7 years*, 22 SMEs (14.7%) were operated for *more than 10 years*, and 4 SMEs (2.7%) were operated for *8 to 10 years*. This shows that many SMEs (92 SMEs, or 61.3%) in the service sector have been operating for less than 5 years at the time this survey was conducted. In addition, there are 94 SMEs (62.7%) are categorised as *microenterprise* with 0 to 4 employees, 35 SMEs (23.3%) are categorised as *small enterprises* with 5 to 29 employees, and 21 SMEs (14%) are categorised as *medium enterprises* with 30 to 75 employees.

The categorisation of SMEs is not limited to the number of employees alone but also to annual sales. Based on the analysis outcome, 110 SMEs (73.3%) claimed their annual sales were less than RM300,000 categorised as *microenterprise*, 27 SMEs (18%) claimed their annual sales were between RM300,000 and RM3 million categorised as *small enterprises*, and 13 SMEs (8.7%) claimed their annual sales were between RM3 million and RM20 million categorised as *medium enterprises*. According to the official national SME definition from SME Corporation Malaysia (2021), if a business fulfils either one of the of the criteria across the different sizes of operation, then the smaller size will be applicable. For example, if a firm's sales turnover falls under microenterprise but employment falls under small, the business will be deemed a microenterprise. Therefore, this study used annual sales as a guideline for the categorisation of SMEs. According to the data outcomes, both result from number of employees and annual sales on categorisation for SMEs into

microenterprise, small enterprise, or medium enterprise supported majority of the SMEs in service sector are formed by microenterprises.

Table 4.23: Demographic Information from SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Nature of Business	Utilities, Transportation, Information and Communication	37	24.7	24.7	24.7
	Wholesale and Retail, Food and Beverage and Accommodation	49	32.7	32.7	57.3
	Finance and Insurance, Real Estate and Business Service	49	32.7	32.7	90.0
	Government Service	2	1.3	1.3	91.3
	Others services	13	8.7	8.7	100.0
Type of Business Entity	Sole Proprietorship	68	45.3	45.3	45.3
	Partnership	42	28.0	28.0	73.3
	Limited Liability Partnership (LLP)	4	2.7	2.7	76.0
	Private Limited Company (S/B)	36	24.0	24.0	100.0
Duration in Operation	Less than 2 years	38	25.3	25.3	25.3
	2 to 4 years	54	36.0	36.0	61.3
	5 to 7 years	32	21.3	21.3	82.7
	8 to 10 years	4	2.7	2.7	85.3
	More than 10 years	22	14.7	14.7	100.0
Number of Employees	0 – 4 (Micro)	94	62.7	62.7	62.7
	5 – 29 (Small)	35	23.3	23.3	86.0
	30 – 75 (Medium)	21	14.0	14.0	100.0
Annual Sales	Less than RM300,000	110	73.3	73.3	73.3
	RM300,000 – RM3 Millions	27	18.0	18.0	91.3
	RM3 Millions – RM20 Millions	13	8.7	8.7	100.0

In this study, respondents representing from each SMEs were allowed to choose for more than one answer in the question of types of technology adopted (Table 4.24). Therefore, a multiple-response test is run using SPSS version 29 for frequencies purposes. Based on the data collected from respondents, *social media* such as LinkedIn, Facebook, Instagram, etc. are the most adopted technology by SMEs, with 111 responses selecting this option. The second most adopted technology by SMEs is *cloud computing,* such as storage, software,

AI-powered tools, servers, etc., with 103 responses selecting this option. The third adopted technology by SMEs is *big data analytics,* with 47 responses selected on this option, followed by *enterprise resource planning* (ERP) with 43 responses selected on this option, *e-commerce* such as Lazada, Shopee, etc. with 40 responses selected on this option, and *financial technology* (Fintech) with 35 responses selected on this option. The least adopted technology by SMEs is *robotics,* with 3 responses selecting this option mainly due to high investment costs and the least relevant to SMEs operations. There are only 1 response selected for social movements and developments.

Table 4.24: Multiple-Reponse on Types of Technology Adopted

		Responses		Percent of Cases
		N	Percent	
Types of Technology Adopted	Cloud Computing	103	26.89	68.67
	Robotics	3	0.78	2.00
	Social Media	111	28.98	74.00
	E-commerce	40	10.44	26.67
	Financial Technology	35	9.14	23.33
	Enterprise Resource Planning	43	11.23	28.67
	Big Data Analytic	47	12.27	31.33
	Other	1	0.26	0.67
	Total	**383**	**100**	**255.33**

Based on the respondents' feedback, as shown in Table 4.25, 52 SMEs (34.7%) have adopted technology for a duration of 13 to 24 months, 36 SMEs (24%) for 25 to 36 months, 35 SMEs (23.3%) for less than 12 months, 15 SMEs (10%) for more than 60 months, and 12 SMEs (8%) for 37 to 60 months. This data indicates that a significant majority of SMEs (123 SMEs or 82%) in the service sector have adopted technology within the last three years. This suggests a recent and substantial shift towards technological adoption among these SMEs, reflecting the growing importance of integrating technology into their operations.

Table 4.25: Duration of Technology Adoption

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 12 months (1 year)	35	23.3	23.3	23.3
13 to 24 months (2 years)	52	34.7	34.7	58.0
25 – 36 months (3 years)	36	24.0	24.0	82.0
37 to 60 months (5 years)	12	8.0	8.0	90.0
More than 60 months (5 years)	15	10.0	10.0	100.0
Total	**150**	**100.0**	**100.0**	

Furthermore, among the 150 SMEs, there are 72 SMEs (48%) categorised themselves as early majority of technology adoption, where they are more careful with financial investment and prefer to make decisions based on early adopters' feedback on technology adoption. Another 36 SMEs (24%) categorised themselves as early adopters, where they observed innovators for decision-making on technology adoption. The other 14 SMEs (9.3%) classified as innovators refer to SMEs that are taking risks and have more financial flexibility for technology adoption in the early stages. Whereas both late majority (refers to SMEs that only catch on when others have already adopted) and laggard (refers to SMEs that refuse to change) consist of 14 SMEs (9.3%), respectively. This information is collected to understand the general behaviour of SMEs in technology adoption as shown in Table 4.26.

Table 4.26: Category of Technology Adoption

Category of Technology Adoption					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Innovator	14	9.3	9.3	9.3
	Early Adopter	36	24.0	24.0	33.3
	Early Majority	72	48.0	48.0	81.3
	Late Majority	14	9.3	9.3	90.7
	Laggard	14	9.3	9.3	100.0
	Total	**150**	**100.0**	**100.0**	

4.3.1.2 Descriptive Statistics

Based on the descriptive statistics analysis shown in Table 4.27, all respondents are valid, with no missing values reported throughout the study, indicating that all questions in the survey were answered by the participants. The mean values for each variable in this study are consistently high, with the mean for the independent variables of technological factors (T) at 4.6662, organisational factors (O) at 4.5533, and environmental factors (E) at 4.5124. For the dependent variables, the mean values are 4.5756 for financial performance (FP) and 4.6917 for non-financial performance (NFP), with the mediator for technology adoption also having a mean of 4.6917. The consistently high mean values, all above 4.5, suggest that most respondents strongly agreed or agreed with the statements related to technological factors, organisational factors, environmental factors, and technology adoption. Additionally, respondents rated their SMEs' financial and non-financial performance as better or much better. The standard deviations for the variables in this study are relatively small, indicating that the responses were tightly clustered around the mean. Specifically, the standard deviations are 0.6539 for technological factors, 0.8591 for organisational factors, 0.8822 for environmental factors, 0.8395 for financial performance, 0.7417 for non-financial performance, and 0.6380 for the mediator, technology adoption. The small standard deviations imply that the respondents had similar perceptions and assessments, with their responses showing little variation from the average. This close clustering around the mean suggests a high level of agreement among the respondents regarding the variables measured in this study.

Table 4.27: Descriptive Statistics

		T	O	E	FP	NFP	TA
N	**Valid**	150	150	150	150	150	150
	Missing	0	0	0	0	0	0
Minimum		1.00	1.00	1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00
Mean		4.6662	4.5533	4.5124	4.5250	4.5756	4.6917
Std. Deviation		0.6539	0.8591	0.8822	0.8395	0.7417	0.6380
Number of Questions		14	12	14	4	6	4

4.3.2 Evaluation of the Measurement Model

For the purposes of data validation, an evaluation of the measurement model, in accordance with the study by Qalati et al. (2021), was conducted using two primary methods. Firstly, using SPSS Version 29 to run for Kaiser-Meyer-Olkin and Bartlett's test. Secondly, using SmartPLS 4.1 on Cronbach's alpha and Composite Reliability, Convergent Validity, Discriminant Validity on Fornell and Larcker's (1981) and Collinearity on Variance Inflation Factor (VIF).

4.3.2.1 Kaiser-Meyer-Olkin and Bartlett's test

The evaluation of the measurement model for this study employed the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity to assess sampling adequacy and ensure data suitability for this study as shows in Table 4.28 (Qalati et al., 2021). Based on the results, the KMO for technological factors is 0.915, organisational factors is 0.874, environmental factors is 0.901, financial performance is 0.829, non-financial performance is 0.862, and technology adoption is 0.834. This indicates that the KMO scores for all the variables in this study are greater than 0.8. Based on Meseguer-Artola et al. (2020), a threshold of at least 0.80 is suitable for initiating factor analysis. According to the authors' tabular for KMO in between 0.80 to 0.90 is meritorious, and KMO greater than 0.9 is marvellous, as shown in

Table 3.6 (Meseguer-Artola et al., 2020). This is also supported by Qalati et al. (2021) KMO, which is higher than the acceptable level of 0.50, means substantial for explanatory factor analysis. Bagheri et al. (2019) deem KMO results between 0.50 and 0.90 as reliable, and values near 1.0 as optimal.

On the other hand, all the results for Bartlett's Test for this study are significant at less than 0.001 (below the 0.05 significant level), which indicates this study is suitable for conducting a factor analysis as shown in Table 4.28. This is in parallel with the outcomes from the pilot test, and studies by Qalati et al. (2021) and Bagheri et al. (2019). The studies indicated that a significant test result below 0.05 is considered good and therefore rejects the null hypothesis, suggesting that the correlation matrix isn't an identity matrix, signifying interrelationships between variables (Qalati et al., 2021; Bagheri et al., 2019). Therefore, all the variable reliability and validity are proven for this study.

Table 4.28: Kaiser-Meyer-Olkin (KMO) & Bartlett's Test

	KMO	**Bartlett's Test**
Technological Factors	0.915	<.001
Organisational Factors	0.874	<.001
Environmental Factors	0.901	<.001
Financial Performance	0.829	<.001
Non-financial Performance	0.862	<.001
Technology Adoption	0.834	<.001

4.3.2.2 Construct Reliability and Validity

The Internal Consistency Reliability for Cronbach's alpha (α) used to measure internal consistency of data provided an estimate of reliability based on the inter-correlation of the observed indicators (Qalati et al., 2021). Based on the first-order model analysis as shows in Table 4.29, the Cronbach's alpha for the independent variable on technological

factors is 0.957 (relative advantage is 0.952, compatibility is 0.980, and complexity is 0.923), organisational factors is 0.920 (firm size is 0.974, top management support is 0.974, and financial resources is 0.934), and environmental factors is 0.962 (competitive pressure is 0.946, customer pressure is 0.961, and government support is 0.989); the dependent variable on financial performance is 0.950, and non-financial performance is 0.973; as well as the mediator on technology adoption is 0.935. Based on Qalati et al. (2021), Cronbach's alpha for greater than 0.7 is good in the range between 0 to 1, which indicates the study is reliable. This statement is also supported by Bagheri et al. (2019), Cortina (1993), and Cronbach (1951), deeming Cronbach's alpha greater than 0.7 and above as an accepted threshold, thereby demonstrating a higher-order construct. Another study by Arilaha et al. (2021) also suggested that a reliable Cronbach's alpha should fall within the range of 0.60–0.95. Therefore, the construct reliability and validity are proven for first-order model (H_1, H_2, H_3, H_4 and H_5).

The data analyses on composite reliability (CR) for first-order model analysis (Table 4.29) demonstrated that the CR for technological factors is 0.9720 (where the CR of sub-dimensions for relative advantage is 0.9470, compatibility is 0.9830, and complexity is 0.9460), organisational factors is 0.9490 (where the CR of sub-dimensions for firm size is 0.9830, top management support is 0.9790, and financial resources is 0.9580), environmental factors is 0.9760 (where the CR of sub-dimensions for competitive pressure is 0.9590, customer pressure is 0.9710, and government support is 0.9910), financial performance is 0.9640, non-financial performance is 0.9780, and technology adoption is 0.9530. According to Qalati et al. (2021) and Bagheri et al. (2019), the composite reliability is required to be greater than 0.70 to demonstrate the high reliability of the findings and data that are suitable

for further investigation. Therefore, the construct reliability and validity are proven for first-order model (H_1, H_2, H_3, H_4 and H_5).

Furthermore, the convergent validity (CV) study was done for Average Variance Extracted **(**AVE). Based on the first-order model analyses (Table 4.29), the AVE for technological factors is 0.9210 (where the CV of sub-dimensions for relative advantage is 0.8160, compatibility is 0.9080, and complexity is 0.8150), organisational factors is 0.8620 (where the CV of sub-dimensions for firm size is 0.9510, top management support is 0.8850, and financial resources is 0.8840), environmental factors is 0.9300 (where the CV of sub-dimensions for competitive pressure is 0.8220, customer pressure is 0.8940, and government support is 0.9570), financial performance is 0.8710, non-financial performance is 0.8830, and technology adoption is 0.8370. According to Qalati et al. (2021) and Ramayah et al. (2018), variables greater than 0.5 indicate that this study has achieved adequate convergent validity. Therefore, the construct reliability and validity are proven for first-order model (H_1, H_2, H_3, H_4 and H_5).

Table 4.29: Construct Reliability and Validity (First-Order Model)

	Cronbach's alpha	**Composite Reliability**	**AVE**
Technological	**0.957**	**0.972**	**0.921**
Relative Advantage	0.925	0.947	0.816
Compatibility	0.980	0.983	0.908
Complexity	0.923	0.946	0.815
Organisational	**0.920**	**0.949**	**0.862**
Firm Size	0.974	0.983	0.951
Top Management Support	0.974	0.979	0.885
Financial Resources	0.934	0.958	0.884

Table 4.29: Construct Reliability and Validity (First-Order Model) (continued)

Environmental	**0.962**	**0.976**	**0.930**
Competitive Pressure	0.946	0.959	0.822
Customer Pressure	0.961	0.971	0.894
Government Support	0.989	0.991	0.957
Financial Performance	**0.950**	**0.964**	**0.871**
Non-Financial Performance	**0.973**	**0.978**	**0.883**
Technology Adoption	**0.935**	**0.953**	**0.837**

The same test was repeated for the second-order model as shows in Table 4.30. Based on the second-order model analysis the Cronbach's alpha for technological-organisational-environmental factors is 0.977, financial performance is 0.950, and non-financial performance is 0.973; as well as the mediator on technology adoption is 0.935. Based on Qalati et al. (2021), Cronbach's alpha for greater than 0.7 is good in the range between 0 to 1, which indicates the study is reliable. The composite reliability for technological-organisational-environmental factors is 0.980, financial performance is 0.964, and non-financial performance is 0.978; as well as the mediator on technology adoption is 0.953. According to Qalati et al. (2021) and Bagheri et al. (2019), the composite reliability is required to be greater than 0.70 to demonstrate the high reliability of the findings and data that are suitable for further investigation. Furthermore, the convergent validity for AVE for technological-organisational-environmental factors is 0.840, financial performance is 0.871, and non-financial performance is 0.883; as well as the mediator on technology adoption is 0.837. According to Qalati et al. (2021) and Ramayah et al. (2018), variables greater than 0.5 indicate that this study has achieved adequate convergent validity. Therefore, the construct reliability and validity are proven for second-order model (H_6 and H_7).

Table 4.30: Construct Reliability and Validity (Second-Order Model)

	Cronbach's alpha	Composite Reliability	AVE
TOE	0.977	0.980	0.845
FP	0.950	0.964	0.871
NFP	0.973	0.978	0.883
TA	0.935	0.953	0.837

Based on the results from Fornell and Larcker's Criterion, the objectives for establishing construct reliability and validity have been achieved for both the first- and second-order models, as demonstrated in Table 4.31 and Table 4.32. The discriminant validity for first-order model (Table 4.31) analyses for compatibility (CP) is 0.953, competitive pressure (CPP) is 0.907, customer pressure (CS) is 0.946, complexity (CX) is 0.903, environmental factors (E) is 0.965, financial performance (FP) is 0.933, financial resources (FR) is 0.940, firm size (FS) is 0.975, government support (GS) is 0.978, non-financial performance (NFP) is 0.940, organisational factors (O) is 0.928, relative advantage (RA) is 0.903, technological factors (T) is 0.960, technology adoption (TA) is 0.915, and top management support (TS) is 0.941. Therefore, the construct reliability and validity are proven for first-order model (H_1, H_2, H_3, H_4 and H_5).

Table 4.31: Discriminant Validity for First-Order Model

	CP	CPP	CS	CX	E	FP	FR	FS	GS	NFP	O	RA	T	TA	TS
CP	**0.953**														
CPP	0.812	**0.907**													
CS	0.776	0.931	**0.946**												
CX	0.881	0.813	0.823	**0.903**											
E	0.820	0.962	0.981	0.858	**0.965**										
FP	0.795	0.789	0.770	0.764	0.820	**0.933**									
FR	0.830	0.862	0.888	0.848	0.931	0.809	**0.940**								
FS	0.777	0.812	0.822	0.781	0.855	0.82	0.803	**0.975**							
GS	0.788	0.852	0.908	0.850	0.952	0.808	0.945	0.84	**0.978**						
NFP	0.864	0.895	0.880	0.814	0.912	0.883	0.845	0.886	0.864	**0.940**					
O	0.865	0.895	0.873	0.864	0.926	0.856	0.935	0.924	0.914	0.894	**0.928**				
RA	0.911	0.847	0.783	0.855	0.835	0.774	0.807	0.800	0.790	0.850	0.877	**0.903**			
T	0.970	0.859	0.828	0.948	0.873	0.813	0.864	0.821	0.845	0.880	0.906	0.962	**0.960**		
TA	0.891	0.808	0.731	0.804	0.793	0.736	0.76	0.810	0.761	0.836	0.871	0.921	0.909	**0.915**	
TS	0.802	0.821	0.727	0.779	0.797	0.753	0.804	0.771	0.762	0.765	0.926	0.836	0.840	0.855	**0.941**

On the other hand, the discriminant validity's AVE on second-order model (Table 4.32) analyses showed the financial performance (FP) is 0.933, non-financial performance (NFP) is 0.940, technology adoption (TA) is 0.915, and technological-organisational-environmental factors (TOE) is 0.919. Therefore, the construct reliability and validity are valid for second-order model (H_6 and H_7).

Table 4.32: Discriminant Validity for Second-Order Model

	FP	NFP	TA	TOE
FP	**0.933**			
NFP	0.883	**0.940**		
TA	0.736	0.836	**0.915**	
TOE	0.858	0.926	0.891	**0.919**

4.3.2.3 Variance Inflation Factor

In this study, the Variance Inflation Factor (VIF) was assessed for both the first- and second-order models during the pilot test and confirmed to be substantially reliable, indicating no potential collinearity issues. This finding provided confidence that the study could proceed without concerns of multicollinearity affecting the results. Where the same test is run again in the actual test, based on the results it indicated that the VIF for first-order model are 1.000 for all direct pathway from T to TA, O to TA, E to TA, TA to FP, and TA to NFP. On the other hand, for second order model, the inner model VIF for this study from TOE to TA, TA to FP, and TA to NFP are all 1.000 as well for all indirect pathway. The result indicates that there is no potential issue (below VIF 3.3) with collinearity accordance to Qalati et al. (2021) and Diamantopoulos and Siguaw (2006).

4.3.3 Evaluation of the Structural Model

This evaluation of the structural model in this study applied a path analysis on path coefficient and Goodness-of-Fit (GoF), bootstrapping on Coefficient of Determination (R^2), and a blindfolding procedure on Stone-Geisser's Q^2 Predictive Relevance **(**Q^2**)** for hypotheses testing purposes, and the test for this part is run based on the first-order model for H_1, H_2, H_3, H_4 and H_5 to demonstrate a direct relationship, and second-order model for H_6 and H_7 to demonstrate an indirect relationship in accordance to the studies from Qalati et al. (2021).

This study used SmartPLS 4.1's PLS bootstrapping procedure to assess the significance and relevance of structural model relationships. This method involves drawing a large number of subsamples from the original sample and replacing them to calculate bootstrap standard errors, which allows for the determination of approximate t-values for testing the structural path's significance. The bootstrap results also help to approximate the data's normality, allowing for the calculation of standard errors used in t-value computations and mitigating non-normality issues. As recommended by Qalati et al. (2021) and Ramayah et al. (2018), 5000 bootstraps should be used to ensure robustness. Prior research has suggested using the Percentile Method to construct confidence intervals for parameters, with the system assuming a symmetrical bootstrap distribution (normal distribution) by default. The blindfolding procedure entails systematically omitting and predicting each data point from the reflective measurement model's endogenous construct indicators (Ramayah et al., 2018). It is tailored to endogenous constructs with reflective measurement model specifications. If the predictions closely match the original values with minimal prediction error, the path has a high predictive accuracy.

4.3.3.1 Hypotheses Testing

The following Table 4.33 demonstrated the path coefficient and hypotheses testing on direct relationship for H_1, H_2, H_3, H_4 and H_5, based on the results as generated from first-order model on the path coefficient for this study indicated that all the results for H_1, H_2, H_3, H_4 and H_5 are supported. This is because the path coefficient values involve standardisation within a range from -1 to +1, where the coefficients for this study in their direct relationship among variables are generally closer to +1 and denote strong positive relationships (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). The path coefficient for H_1 on T to TA is 0.721, where sub-dimensions for RA to T is 0.361, CP to T is 0.349, and CX to T is 0.332. The path coefficient for H_2 on O to TA is 0.463, where sub-dimensions for FS to O is 0.359, TS to O is 0.365, and FR to O is 0.353. The path coefficient for H_3 on E to TA is -0.265, where sub-dimensions for CPP to E is 0.352, CS to E is 0.344, and GS to E is 0.340. The path coefficient for H_4 for TA to FP is 0.736, as well as H_5 for TA to NFP is 0.836. While coefficients near +1 are statistically significant, the significance for this study is also validated through bootstrapping to ascertain a path coefficient of at least 0.05 significance level (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). The analyses are run in accordance with the criteria from Qalati et al. (2021) and Bagheri et al. (2019), where the t-value should be greater than 1.96 and the p-value should be less than 0.05 via a two-tail analysis. Where, the p-value for H_1 and its sub-dimensions are 0, for H_2 is 0.034 and its sub-dimensions are 0, for H_3 is 0.038 and its sub-dimensions are 0, for H_4 is 0, as well as H_5 is 0. These results indicated that all the variables are significant at less than 0.05. Other information included in the test including mean for H_1 is 0.721, H_2 is 0.455, H_3 is 0.254, H_4 is 0.741, and H_5 is 0.839, with a low standard deviation for H_1 is 0.180, H_2 is 0.218, H_3 is 0.128, H_4 is 0.055, and H_5 is 0.033 this indicates the data are reliable as they are close to the

mean. Therefore, the hypotheses testing is found supported in first-order model on direct relationship for H_1, H_2, H_3, H_4 and H_5. The results are similar to the studies from Nguyen et al. (2024) for a study on social media adoption and TOE framework, Teh et al. (2024) for a study on the top management support in the adoption of cloud computing, Abdurrahman et al. (2024) for a study on digital transformation and TOE framework, as well as Xie et al. (2024) computing adoption and TOE framework.

Table 4.33: Path Coefficient and Hypotheses Testing for First-Order Model

		Path Coefficient	Mean	SD	T statistics	P values	Decision
H_1	**T → TA**	0.721	0.721	0.180	4.001	0.000	Supported
	RA →T	0.361	0.360	0.011	32.735	0.000	Supported
	CP → T	0.349	0.350	0.011	31.703	0.000	Supported
	CX → T	0.332	0.331	0.007	47.358	0.000	Supported
H_2	**O → TA**	0.463	0.455	0.218	2.125	0.034	Supported
	FS → O	0.359	0.358	0.008	45.284	0.000	Supported
	TS → O	0.365	0.364	0.011	33.581	0.000	Supported
	FR → O	0.353	0.354	0.008	47.024	0.000	Supported
H_3	**E → TA**	-0.265	-0.254	0.128	2.073	0.038	Supported
	CPP → E	0.352	0.349	0.008	44.311	0.000	Supported
	CS → E	0.344	0.347	0.011	31.124	0.000	Supported
	GS → E	0.340	0.34	0.006	57.559	0.000	Supported
H_4	**TA → FP**	0.736	0.741	0.055	13.428	0.000	Supported
H_5	**TA → NFP**	0.836	0.839	0.033	25.373	0.000	Supported

Based on the results for the path coefficient and hypotheses testing in the second-order model, which demonstrates an indirect relationship (mediating effects), the path coefficients for H6 and H7 are supported, as shown in Table 4.34. The path coefficient for H6 is 0.736, and for H7, it is 0.836, both of which are greater than 0.7, indicating strong

positive relationships. These findings are consistent with previous studies by Qalati et al. (2021), Bagheri et al. (2019), and Ramayah et al. (2018), which also demonstrated the strength of these relationships. Additionally, the significance levels for H6 and H7 are both 0 (less than 0.05), further supporting the hypotheses. The mean values for H6 and H7 are 0.742 and 0.840, respectively, with low standard deviations of 0.055 for H6 and 0.033 for H7. This low standard deviation indicates that the data are reliable and closely aligned with the mean values. Consequently, the hypotheses testing results support the second-order model's indirect relationships for H6 and H7 with the mediator. These findings align with similar studies, such as those by Nguyen et al. (2024) on social media adoption and the TOE framework, Teh et al. (2024) on top management support in cloud computing adoption, Abdurrahman et al. (2024) on digital transformation and the TOE framework, and Xie et al. (2024) on computing adoption and the TOE framework. These consistent results further validate the reliability and applicability of the TOE framework in studying technology adoption and its impact on SME performance.

Table 4.34: Path Coefficient and Hypotheses Testing for Second-Order Model

		Path Coefficient	Mean	SD	T statistics	P values	Decision
H_6	**TOE → TA → FP**	0.736	0.742	0.055	13.456	0.000	Supported
H_7	**TOE → TA → NFP**	0.836	0.840	0.033	25.403	0.000	Supported

4.3.3.2 Goodness-of-Fit (GoF)

This study assessed the Goodness-of-Fit (GoF) for model fit using Standardised Root Mean Square Residual (SRMR) as a key metric to assess the absolute mean value of covariance residuals (Qalati et al., 2021; Bagheri et al., 2019). The SRMR converts both the sample covariance matrix and the predicted covariance matrix into correlation matrices. This

gives the study a way to measure how different the observed and expected correlations are and to check if the model fits. Typically, a value below 0.10 or 0.08 (SRMR ≤ 0.08) signifies a good fit, and a value of 0 indicates a perfect fit, aiding in the identification and rectification of potential model misspecification (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). Therefore, based on the data analyses indicated in Table 4.35, the SRMR for first-order model (direct relationship) of this study is 0.052 which is below 0.08, and this signifies a good fit for the model. The squared euclidean distance (d_ULS) is 5.378 (greater than 0.05) which establish a model fit for the first-order model (Ramayah et al., 2018). The results are also supported by the studies from Yan and Ge (2024) for a study on technology adoption, Ayesha (2024) for a study on adoption of cybersecurity, as well as Monson and Macauley (2024) for the study on e-commerce adoption.

Table 4.35: Model Fit for First-Order Model

SRMR	d_ULS	d_G	Chi-square	NFI
0.052	5.378	N/A	Infinite	N/A

Based on the data analyses indicated in Table 4.36, the SRMR for second-order model (indirect relationship) in this study is 0.046 which is below 0.08, and this signifies a good fit for the model (Qalati et al., 2021; Bagheri et al., 2019; Ramayah et al., 2018). The squared euclidean distance (d_ULS) is 0.573, and the geodesic distance (d_G) is 2.354, where both values greater than 0.05 established a model fit according to Ramayah et al. (2018). The Normal Fit Index (NFI) for this study is 0.766, where an NFI that is close to 1 means a good fit (Smeulders, Crama, & Spieksma, 2019).

Table 4.36: Model Fit for Second-Order Model

SRMR	d_ULS	d_G	Chi-square	NFI
0.046	0.573	2.354	1488.099	0.766

4.3.3.3 Structural Model

This study evaluated the significance and relevance of the structural model relationships utilising the PLS-SEM bootstrapping procedure. The test is done as accordance to Qalati et al. (2021), Bagheri et al. (2019), and Ramayah et al. (2018) by employing 5000 bootstraps is advisable to ensure robustness. Prior studies have suggested the used of the Percentile Method to construct confidence intervals for parameters, generally assuming a symmetrical bootstrap distribution (normal distribution) by default in the system settings. The model's predictive accuracy is assessed using the Coefficient of Determination (R^2), where R^2 signifies the variance in the endogenous construct elucidated by all connected exogenous constructs, ranging between 0 and 1. Higher values denote greater predictive accuracy (Ramayah et al., 2018). Typically, there are three benchmarks for acceptable R^2 according to a research done by Qalati et al. (2021) that R^2 values of greater than 0.60 (substantial), 0.33 (moderate), and 0.19 (weak), aligning with findings by Chin (2010). Therefore, based on the first-order model outcomes for this study as shown in Table 4.37, the R^2 for technological factors (T) is 1.000 with R^2 adjusted is 1.000, organisational factors (O) is 1.000 with R^2 adjusted is 1.000, and environmental factors (E) is 1.000 with R^2 adjusted is 1.000, these results indicated a substantial value for R^2. Where, the financial performance (FP) is 0.541 with R^2 adjusted is 0.538 which demonstrated a moderate, and non-financial performance (NFP) is 0.699 with R^2 adjusted is 0.697 which demonstrated a substantial result. The R^2 for technology adoption (TA) is 0.848 with R^2 adjusted is 0.845 which demonstrated a substantial result. On the other hand, based on the second-order model outcomes as shown in Table 4.38, the R^2 for technology adoption (TA) is 0.794 with R^2

adjusted is 0.793 which demonstrated a substantial result, financial performance (FP) is 0.542 with R^2 adjusted is 0.539 which demonstrated a moderate, and non-financial performance (NFP) is 0.699 with R^2 adjusted is 0.697 which demonstrated a substantial result. Therefore, this indicated that both models for first- and second order are accepted in this study. The results are supported by Fatima et al. (2024) on a study for influence of AI implementation and TOE framework, as well as Samat et al. (2024) on a study for social media marketing adoption between TOE framework and competitive intelligence.

Furthermore, this study evaluated the predictive relevance of the path model using the blindfolding procedure. This technique, commonly employed to assess predictive relevance, is calculated through It's specifically applied to endogenous constructs with reflective measurement model specifications. If the predictions closely align with the original values with minimal prediction error, it indicates a high level of predictive accuracy for the path. A study from Qalati et al. (2021) suggested utilising the Cross-Validated Redundancy (CVR) approach, employing the path model to estimate the structural model. Based on Qalati et al. (2021) and Ramayah et al. (2018), the Stone-Geisser's Q^2 Predictive Relevance **(**Q^2**)** values exceeding 0 ($Q^2 > 0$) indicate predictive relevance of the exogenous constructs for the endogenous construct. According to the Q^2 from first-order model as shown in Table 4.37 for technological factors (T) is 0.907, organisational factors (O) is 0.849, and environmental factors is 0.918. Where, for financial performance (FP) is 0.468, non-financial performance (NFP) is 0.610, and technology adoption (TA) is 0.688. On the other hand, the Q^2 from second-order model as shown in Table 4.38 for technology adoption (TA) is 0.654, financial performance (FP) is 0.468, and non-financial performance (NFP) is 0.610. Based on Qalati et al. (2021) and Ramayah et al. (2018) the Q^2 values for exceeding 0

indicates predictive relevance of the exogenous constructs for the endogenous construct, therefore as all the Q^2 are greater than 0 it proved the predictive relevance of the inner model for this study. Therefore, this indicated that both inner models for first- and second order are accepted in this study. The results are supporting by studies from Komathi and Sim (2024) on a study for TOE framework in e-commerce adoption, Wachyuni et al. (2024) on a study for digital technology adoption, and Abu-Silake et al. (2024) on a study for digital tax platforms.

Table 4.37: Structural Model (First-Order Model)

	Cross Validated Redundancy			**Coefficient of Determination**	
	SSO	*SSE*	*Q^2 (=1-SSE/SSO)*	*R^2*	*R^2 adjusted*
T	450.000	41.736	0.907	1.000	1.000
O	450.000	67.791	0.849	1.000	1.000
E	450.000	36.909	0.918	1.000	1.000
FP	600.000	319.216	0.468	0.541	0.538
NFP	900.000	350.855	0.610	0.699	0.697
TA	600.000	187.051	0.688	0.848	0.845

Table 4.38: Structural Model (Second-Order Model)

	Cross Validated Redundancy			**Coefficient of Determination**	
	SSO	*SSE*	*Q^2 (=1-SSE/SSO)*	*R^2*	*R^2 adjusted*
FP	600.000	319.039	0.468	0.542	0.539
NFP	900.000	350.705	0.610	0.699	0.697
TA	600.000	207.714	0.654	0.794	0.793

4.4 Discussion

Overall, there are seven hypotheses been tested in this study for both pilot test and final test using the same methods for both measurement and structural evaluation. Based on the results, both pilot and final test demonstrated similar result outcomes for validity tests and from H_1 to H_7 indicated that this study is valid and reliable. This is also supported by the reliability and validity tests as conducted in this study. Both tests are conducted and analysed in a same method to ensure the consistency of this study. Therefore, all the seven hypotheses are discussed in the following. Firstly, there is a significant strong positive relationship between technological factors and the technology adoption (H_1) with a path coefficient for 0.721 (greater than 0.7). Where in this study the technological factors' sub-dimensions, such as relative advantage, compatibility, and complexity also demonstrated a positive correlation with the subject study. This is also supported by the findings from Marei (2024) for the study on TOE framework on software adoption, Legesse et al. (2024) for the study on adoption of blockchain technology, and Li at al. (2024) for the study on adoption of IoT, as well as Ahad and Busch (2023) for the study on mobile system adoption. Existing technologies lay as the groundwork, setting the scope and pace for potential technological advancements (Omrani et al., 2022; Tornatzky & Fleischer, 1990; Tornatzky & Klein, 1982). Simultaneously, those market-available innovations served as benchmarks, delineating the boundaries of possibility, and presenting pathways for adaptation and evolution. Where those industries that face gradual or synthetic technological changes can adopt them more slowly. But those industries that face sudden innovations need to make quick decisions to stay competitive (Qalati et al., 2021; Baker, 2012; Tornatzky et al., 1990). Typically, SMEs lean towards technologies that offer ease of use, as the majority are disinclined to invest extensive time and resources in learning intricate innovations (Disu & Yo, 2018).

Secondly, there is a significant positive relationship between organisational factors and the technology adoption (H_2) with a path coefficient for 0.463. Where, organisational factors' measurement such as firm size, top management support, and financial resources demonstrated a positive correlation with the subject study. This is also supported by the findings from Lakhwani et al. (2020) for the study of technology adoption on organisation productivity, Marei (2024) for the study on TOE framework on software adoption, Legesse et al. (2024) for the study on adoption of blockchain technology, as well as Ahad and Busch (2023) for the study on mobile system adoption. Employees are more likely to embrace transitions on technology adoption when the administrative environment fosters high morale and encourages proactive behaviour, thereby enhancing SMEs' competencies and ensuring long-term sustainability (Dadhich & Hiran, 2022). Communication processes led by top management can foster innovation by creating an environment conducive to change and supporting technology adoption aligning with the firm's mission and vision (Nguyen et al., 2022; Nguyen & Petersen, 2017). The availability of financial backing emerges as a critical determinant shaping the likelihood of embracing new technologies within SMEs (Nguyen & Petersen, 2017). A higher monetary investment allocation towards initiating and sustaining technological changes can significantly contribute to building a competitive edge for SMEs within the market (Kumar & Krishnamoorthy, 2020; Maroufkhani, Wan Ismail, & Ghobakhloo, 2020).

Thirdly, there is a significant negative relationship between environmental factors and the technology adoption (H_3) with a path coefficient for -0.265. Where, environmental factors' measurement such as competitive pressure, customer pressure, and government support, demonstrated a positive correlation with the subject study. This is also supported

by the findings from Zhu et al. (2024) for the study on environmental technology, Granić (2023) for the study on technology adoption, Adão et al. (2024) for the study on technology adoption, and Li at al. (2024) for the study on adoption of IoT. Extensive research underscores the paramount importance of environmental factors in dictating the trajectory of technology implementation within SMEs. These environmental factors consideration served as critical determinants that contextualise and shape the adoption of technology (Muhamad et al., 2021; Sallehudin, Aman, Razak, Ismail, Fadzil, & Baker, 2019; Alshamaila & Papagiannidis, 2013; Lin, 2013). Intense competition in industries has spurred firms to engage in innovative efforts, as evidenced by the impact of leading companies in value chains, which has driven the adoption of collaborative innovation practices (Zhong & Hee, 2023; Baker, 2012; Tornatzky & Fleischer, 1990). The technological progress is made possible by the robustness of the technology infrastructure. The presence of proficient workforce and convenient availability of technology services fosters innovation, particularly in situations where cost is a concern (Zhong & Hee, 2023; Jia, Guo, & Barnes, 2017; Baker, 2012; Tornatzky & Fleischer, 1990).

Fourthly, there is a significant strong positive relationship between technology adoption and the financial performance of SMEs (H_4) with a path coefficient for 0.736 (greater than 0.7). This is also supported by the findings from Abdelwahed et al. (2024) for the study on blockchain technology adoption, Marei (2024) for the study on TOE framework on software adoption, Ahinful et al. (2023) for the study on financial performance, as well as Badghish and Soomro (2024) for the study on AI adoption. Previous study by Ahmad and Jamil (2020), Majenga and Mashenene (2014), Annastazia and Roberts (2014), Tundui and Tundui (2012), and Nyangoma (2012), laid a foundation for assessing the financial

performance of SMEs, considering parameters like profit, operating profit, sales, and cash flow. Study from Nyangoma (2012) also emphasised the critical role of initial wealth generation in SMEs for sustaining market presence and achieving robust financial performance. This insight underscores that the financial success of SMEs hinges on their adeptness in efficiently leveraging assets and generating cash flow, aspects often influenced by technology adoption (Ahmad and Jamil, 2020).

Fifthly, there is a significant strong positive relationship between technology adoption and the non-financial performance of SMEs (H_5) with a path coefficient for 0.836 (greater than 0.7). This is also supported by the findings from Amirrudin et al. (2024) for the study on social media adoption and non-financial performance, Rashid (2024) for the study on social media adoption, as well as Badghish and Soomro (2024) for the study on AI adoption. This result is aligned with previous studies by Ahmad and Jamil (2020), Daniel and Okibo (2014), and Christopher and David (2003), focusing on assessing the non-financial performance of SMEs in terms of their valued customers, employees' conditions, and product development. The study from Christopher and David (2003) emphasised that customer loyalty and employee satisfaction significantly impact SMEs' non-financial performance, ultimately affecting their profitability (Ahmad & Jamil, 2020). Enhanced SME performance correlates with higher levels of customer and employee loyalty, indicating satisfaction with the provided products or services. A business's ability to address customer needs fosters satisfaction and loyalty. Moreover, Ahmad and Jamil (2020) and Daniel and Okibo (2014) highlighted employee growth, market expansion, and product development as critical indicators for non-financial performance. Venturing into new markets or diversifying product ranges positively influences an enterprise's performance (Ahmad & Jamil, 2020).

Sixthly, there is a strong mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the financial performance of SMEs (H_6) with a path coefficient for 0.736 (greater than 0.7). This is also supported by the findings from Mataruka and Muzurura (2023) for the study on adoption of social media using TOE framework, Ahinful et al. (2023) for the study on financial performance, as well as Hossain and Azam (2023) for the study on effects of TOE on e-marketplace. This result is similar to the past studies from Thaha et al. (2022), Qalati et al. (2021), and Bagheri et al. (2019), where technology adoption is expected to reduce costs, increase output without increasing prices, and improve the quality of services and goods produced. In many areas, companies used the TOE framework to better understand their firm commitment to technology adoption, as it reveals their intention to embrace technologies (Nguyen et al., 2022). Understanding financial statements and making money from scratch are the two main things that determine a small business's financial performance.

Lastly, there is a strong mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the non-financial performance of SMEs (H_7) with a path coefficient for 0.836 (greater than 0.7). This is also supported by the findings from Amirrudin et al. (2024) for the study on social media adoption and non-financial performance, Hassan et al. (2023) for the study on technology readiness, as well as Mataruka and Muzurura (2023) for the study on adoption of social media using TOE framework. This result is similar to the past studies by Thaha et al. (2022), Qalati et al. (2021), and Bagheri et al. (2019), where technology adoption helps businesses stay ahead of the competition by improving customer service, management performance, and the quality of information. The widespread use of technology has drastically changed how businesses

operate and has an impact on consumer behaviour, tastes, and spending patterns. It's good for management strategies like communication, getting information, data management, making decisions, and knowledge management, as Adeosun et al. (2008) point out. Technology helps businesses to stay ahead of the competition by improving customer service, management performance, and the quality of information. Businesses can also get an edge with technology (Thaha et al., 2022).

4.5 Chapter Summary

This chapter covered the industry experts' pre-test of the study to find areas that needed improvement. Based on the feedback, there are minor changes required for improvement in Part A for two questions, then the rest can proceed with no changes. In order to validate the data after an amendment, a pilot test is carried out with 30 SMEs in the Sarawak service sector as the target audience. To ensure an accuracy for actual test, the 30 SMEs are chosen based on a separate target, means those who are involved in this pilot test are not longer to be included in the actual test. Frequencies, multiple responses, and other descriptive data, as well as descriptive statistics are analysed using the descriptive analysis using SPSS Version 29. Numerous tests, including the KMO and Bartlett's test (used SPSS), Cronbach’s alpha, composite reliability, convergent validity, discriminant validity, and VIF from SmartPLS 4.1 are used to evaluate the measurement model. On the other hand, the structural model was evaluated using a variety of techniques, including path analysis, bootstrapping, and blindfolding from SmartPLS 4.1. Finally, a summary of the chapter and a discussion of the study based on the data analyses.

CHAPTER 5

CONCLUSION

5.0 Introduction

This chapter provided an overall conclusion of the study, focusing on the descriptive analysis, which covered demographic information and the descriptive statistics of the data. A summary of the evaluation of the measurement model, including KMO and Bartlett's test, Cronbach's alpha, composite reliability, convergent validity for AVE, and collinearity for VIF, was also presented. Additionally, the chapter summarized the evaluation of the structural model, covering hypotheses testing, goodness-of-fit, and the outcomes of the structural model. Finally, sound recommendations were made for future studies, based on the limitations of this study and potential areas for future expansion.

5.1 Summary

In summary, SMEs in the service sector in Malaysia are facing exceptional challenges, such as disrupted supply chains and shifts in consumer behavior (Irawan, 2020). To overcome these obstacles, many SMEs have accelerated their efforts toward technological transformation, aiming not only to survive but also to thrive in the post-pandemic era (Irawan & Asfiah, 2022). Therefore, conducting research on the service sector in Sarawak is crucial, as it plays a significant role as one of the largest contributors to Malaysia's GDP. Research in Sarawak can yield valuable insights, aiding in the identification of areas for enhancement in the region. Based on the demographic information collected, female respondents outnumber male respondents, indicating that many women now hold important decision-making roles. This observation is supported by Calabrò et al. (2024), who

noted a growing trend of women from business-owning families being appointed to leadership roles. The data also shows that representatives from SMEs are mostly aged between 26 and 35 years, suggesting that many technology adoption decisions are made by individuals within this age group. This finding is consistent with studies by Bruce et al. (2023) and Qalati et al. (2021), which applied similar measurement methods. In terms of education level, the majority of respondents hold an undergraduate qualification, revealing that undergraduates are highly involved in the current SME landscape. Block et al. (2023) support this, noting that collaborating with higher education institutions for undergraduate talent can help SMEs reduce the risk and uncertainty associated with entrepreneurship and catch up with larger corporations. Most of the SME representatives who participated in this study are managers, which aligns with findings from Kindström et al. (2024) that explored how managers can better understand the challenges related to growth over time.

The SMEs involved in this survey are primarily from (i) wholesale and retail, food and beverage, and accommodation, and (ii) finance and insurance, real estate, and business services. This study mainly involved SMEs with sole proprietorship registrations, indicating that most SMEs in the service sector are formed by sole proprietorships. Additionally, many SMEs (92) in the service sector have been operating for less than 5 years at the time this survey was conducted. Ahinful et al. (2023) found that firm age is associated with SME performance. Moreover, the majority of SMEs (110) are categorized as microenterprises due to their annual sales being less than RM300,000 per annum.

The study also indicated that social media is ranked as the top technology adopted by SMEs, followed by cloud computing as the second most adopted technology. Big data

analytics ranks third, followed by enterprise resource planning (ERP), e-commerce, and financial technology (Fintech). The least adopted technology by SMEs is robotics, likely due to high investment costs and its limited relevance to SME operations. Based on the respondents' feedback, most SMEs (123) in the service sector have adopted technology for less than 3 years, with most of them (72 SMEs) categorizing themselves as early adopters of technology, indicating a cautious approach to financial investment and a preference for basing decisions on the feedback from other early adopters.

The descriptive statistics of this study show that all respondents are valid, with no missing values throughout the study, meaning that respondents answered all survey questions. The mean for this study is generally above 4.5, indicating that most respondents rated technological factors, organisational factors, environmental factors, and the mediator on technology adoption as 4 (agree) or 5 (strongly agree). They also rated financial performance and non-financial performance as 4 (better) or 5 (much better). The small standard deviation for variables indicates that the standard deviation for this study is close to the mean, suggesting consistency in the responses. The KMO for this study on organisational factors, financial performance, non-financial performance, and technology adoption ranged between 0.80 and 0.90, indicating a meritorious level, while technological factors and environmental factors scored above 0.9, indicating a marvelous level. This suggests that the study is substantial for explanatory factor analysis (EFA). Furthermore, all results for Bartlett's Test are significant at less than 0.001 (below the 0.05 significance level), confirming the suitability of the study for factor analysis.

In the evaluation of the measurement model, the Cronbach's alpha (α) for both first- and second-order models indicated that all variables scored above 0.7, which is considered good. Findings from Izah et al. (2024) emphasize the importance of Cronbach's alpha in ensuring the validity of measurement instruments, particularly in consistently measuring intended constructs across diverse contexts. Similarly, composite reliability in this study also scored above 0.70 for both first- and second-order models, indicating high reliability of the findings and that the data is suitable for further investigation. Convergent validity for both models also exceeded 0.5, demonstrating adequate convergent validity. According to Shimels et al. (2024), high internal consistency and validity of items with a good fit to the data suggest the potential accuracy of the domains. Discriminant validity for both first- and second-order models was achieved according to the Fornell and Larcker's Criterion. The inner Variance Inflation Factor (VIF) for this study indicated no potential issues with collinearity.

Regarding the evaluation of the structural model, the path coefficient indicated that all hypotheses (H_1, H_2, H_3, H_4, H_5, H_6, and H_7) are supported, as the coefficients are generally closer to +1 or –1. A low standard deviation for all hypotheses indicates that the data is reliable, as it is close to the mean. The results for hypotheses testing on path coefficients with low standard deviation are similar to studies by Nguyen et al. (2024) on social media adoption and the TOE framework, Teh et al. (2024) on top management support in cloud computing adoption, Abdurrahman et al. (2024) on digital transformation and the TOE framework, as well as Xie et al. (2024) on computing adoption and the TOE framework. The SRMR for this study is below 0.08 for both first- and second-order models, signifying a good fit for both models. The results are supported by studies by Yan and Ge (2024) on technology

adoption, Ayesha (2024) on cybersecurity adoption, and Monson and Macauley (2024) on e-commerce adoption. The R^2 in this study indicated that both first- and second-order models are accepted, supported by studies by Fatima et al. (2024) on the influence of AI implementation and the TOE framework, and Samat et al. (2024) on social media marketing adoption between the TOE framework and competitive intelligence. All Q^2 values greater than 0 proved the predictive relevance of the inner model for this study, indicating that both inner models are accepted. The results are supported by studies from Komathi and Sim (2024) on the TOE framework in e-commerce adoption, Wachyuni et al. (2024) on digital technology adoption, and Abu-Silake et al. (2024) on digital tax platforms.

5.2 Theoretical and Practical Implication

This study has several theoretical and practical implications. It provides insights into the relationship between technological, organisational, and environmental (TOE) factors and technology adoption. Specifically, it examines whether technology adoption mediates the relationship between these TOE factors and the financial performance of SMEs in Sarawak's service sector, as well as whether it mediates the relationship between TOE factors and the non-financial performance of these SMEs.

5.2.1 Theoretical Implications

There is growing interest in how technology adoption can support SME businesses. This study broadens and enriches the current body of literature by introducing novel insights, thereby contributing to the ongoing discourse in this field. The concept of technology adoption in this study encompasses the intention of SMEs to adopt and use technology (Makame et al., 2023). Sarawak is strongly promoting technology adoption across all

economic sectors to foster a digitally driven economy that increases productivity, efficiency, and higher-skilled employment opportunities (Lihan, 2023). By employing the TOE framework as a foundation, this study extends the theoretical implications to include an understanding of the relationships between TOE factors and technology adoption. It further explores whether technology adoption mediates the relationship between TOE factors and both the financial and non-financial performance of SMEs in Sarawak's service sector.

This study validates the TOE factors from the TOE model in relation to technology adoption and the performance of SMEs. It contributes to the existing literature on the TOE framework by providing a more comprehensive understanding of how assessing technological factors helps determine their potential impact on SMEs and their competitive landscape (Bryan & Zuva, 2021), how organisational factors shape strategic decisions and innovation efforts in SMEs (Zhong & Hee, 2023), and how environmental factors drive technological advancement, including industry structures, technology infrastructure, and regulatory frameworks (Disu & Yo, 2018). Additionally, this study bridges gaps in the academic understanding of the TOE factors and technology adoption, combining theoretical insights with practical applications. It explores the relationship between academia and practice, filling gaps in existing literature while enhancing our understanding of SME performance.

5.2.2 Practical Implications

This study has practical implications for SMEs, decision-makers, and the government regarding technology adoption. It analyzed technological, internal, and external factors influencing technology adoption decisions at the organisational level. Understanding the

relationship between these significant factors and technology adoption can help SMEs gain a competitive advantage by encouraging them to adopt technology. This study also serves as a guideline for policymakers seeking to better understand technology adoption in the service sector, providing insights into developing strategies and support systems that will nurture and sustain SME businesses.

Studies on SMEs are essential to the economy, as they contribute significantly to employment, innovation, and sustainable economic growth. Many SMEs still face challenges in integrating technology due to technological, organisational, and environmental factors, compounded by an increasing need to address performance-sustainability concerns (Pandya, 2012). Inadequate physical and technological infrastructure was also found to be a significant obstacle to successful integration (Komathi & Sim, 2024). This study offers actionable suggestions for SMEs regarding technology adoption. The development of SMEs is now a national priority for many governments, as SMEs can drive productivity improvements that enhance future prosperity and wealth creation (Medalla & Mantaring, 2017). SME performance metrics are crucial for their success, often based on their adeptness in adopting competitive strategies, particularly in technology integration. Therefore, this study helps SMEs and businesses make informed decisions about technology adoption, considering technological, organisational, and environmental factors that could lead to increased competitiveness and growth.

Additionally, identifying technology adoption as a mediator allows practitioners to understand its mediating effects on the relationship between technological, organisational, and environmental factors and the performance of SMEs in Sarawak's service sector. These

implications add value for companies considering technology adoption, with consideration for both financial and non-financial performance.

5.3 Limitation of the Study

Like any other piece of research, this study has some limitations that highlight potential areas for further investigation. One significant limitation is the scope of research on sample size that limited to a specific SMEs sector only. For instance, the SMEs selected for this study is refers to those SMEs from service sector in Kuching, Sarawak. Besides that, the selected geographical area which limited to Sarawak specifically Kuching itself should be expanded to other areas, even though a pilot test was done in earlier to cover the mentioned areas.

This study is also constrained by the short timeframe allowed for the course, that restricted researcher to do data collection in a more comprehensive method. This study solely utilized a quantitative approach due to short timeframe, with data collected through an online survey. One of the primary limitations of quantitative research is that it may not yield as detailed information as qualitative research. The model was evaluated using data from SMEs located within Kuching, Sarawak, providing a snapshot of a particular moment in time. However, these effects are subject to change over time. Additionally, the findings are limited to a specific geographical location, indicating potential for future studies on a broader framework.

Limited number of journals reviewed so that only a snapshot of financial performance and non-financial performance research has been captured. Many businesses

now track their performance using a combination of financial and non-financial criteria. Financial indicators alone are inadequate to present a comprehensive picture of a company's situation. Managers who rely solely on financial performance indicators often have a partial perspective of events. Conversely, non-financial performance focuses on the core activities of the company, defining and conveying its priorities to various stakeholders, such as managers, staff, and customers (Marie et al., 2024).

5.4 Recommendation for Future Research

It is recommended that future research be expanded to include a larger number of small and medium-sized enterprises (SMEs) beyond the state of Sarawak. Other locations, such as different states or nations, should also be considered. Additionally, future studies should explore sectors beyond the service sector or larger companies, such as multinational corporations. There is also the potential for conducting multi-layered studies to create a more comprehensive understanding with the existing framework and to add new contributions in more diverse areas.

A mix method of research via both quantitative and qualitative method such as Interview will be another good option for this research. It is also recommended future research should allow more timeframe for extended data collection in wider areas. Future research could also address the gap by adopting mixed methods to study the TOE framework. Practitioners should consider different frameworks and key variables when designing and implementing technology adoption programs, fostering an organisational culture that supports technology adoption, and taking a holistic approach that considers multiple influencing factors.

It is also recommended that examining additional disciplines, as well as inter-disciplinary journals would add more values to the findings of this study. For example, both of the indicators for financial performance and non-financial performance could be extended with a more comprehensive measurement that indicated individually with specific measurement to fit on the present market during the time of research be done in future.

5.5 Conclusion

In conclusion, studying technology adoption in Sarawak's service sector is essential. The impact of technological adoption on business success is evident in studies that show how technology adoption and TOE development complement each other (Shahadat, Argon, Pejman & Maria, 2023). The findings found that all the hypotheses (H_1 to H_7) are correlated which signified the relationship between technological-organisational-environmental factors and technology adoption, as well as mediating effects for technology adoption on the relationship between technological-organisational-environmental factors and financial/ non-financial performance of SMEs are valid.

As a result, the hypotheses testing proven that the research questions (RQ1-7) and research objectives (RO1-7) for this study with general objectives to investigate the mediating effect of technology adoption on the relationship between technological-organisational-environmental and the performance of SMEs in Sarawak service sector; as well as specific objectives to investigate the relationship between technological factors and technology adoption of SMEs in Sarawak service sector (tested with H_1), to assess the relationship between organisational factors and technology adoption of SMEs in Sarawak service sector (tested with H_2), to examine the relationship between environmental factors

and technology adoption of SMEs in Sarawak service sector (tested with H_3), to explore the relationship between technology adoption and financial performance of SMEs in Sarawak service sector (tested with H_4), to determine the relationship between technology adoption and non-financial performance of SMEs in Sarawak service sector (tested with H_5), to examine the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the financial performance of SMEs in Sarawak service sector (tested with H_6), and to assess the mediating effect of technology adoption on the relationship between technological-organisational-environmental factors and the non-financial performance of SMEs in Sarawak service sector (tested with H_7) are valid.

The findings indicates that technology adoption is impacted by the technological-organisational-environmental factors which parallel with the results from previous findings by reputable researchers or studies (Abdurrahman et al., 2024; Abu-Silake et al., 2024; Ayesha, 2024; Fatima et al., 2024; Komathi & Sim, 2024; Monson & Macauley, 2024; Nguyen et al., 2024; Samat et al., 2024; Teh et al., 2024; Wachyuni et al., 2024; Xie et al., 2024; Yan & Ge, 2024). The study also found that technology adoption has an impact on both the financial and non-financial performance of SMEs, as enhancing SMEs' processes tends to improve overall business performance (Abdurrahman et al., 2024; Nguyen et al., 2024; Teh et al., 2024; Xie et al., 2024). As a result, the study on technological, organisational, and environmental factors and the performance of SMEs in the Sarawak service sector has been proven to be valid and aligned with the overall research objectives.

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APPENDICES

Appendix A:

Summary of Literature Review

Author(s)/ Year	Country	Theory	Research Gap	Methodology	Important Findings
(Al-Sharafi et al., 2023)	- Malaysia - SMEs	- TOE - Cloud computing adoption - Financial performance	To evaluate the determinants affecting cloud computing integration in SMEs and their influence on financial performance.	- Survey - PLS-SEM - ANN	The findings revealed that integrating cloud computing significantly improves SMEs' financial performance.
(Hayford, Nkululeko, & Charles, 2023)	- Ghana - SMEs	- TOE - Social media adoption - Financial performance - Non-financial performance	The study employs the TOE theory to examine the role of SMEs' adoption of social media on financial and non-financial marketing performance in Ghana.	- Survey - SEM	The outcome reveals a positive and significant relationship between social media adoption and SMEs' financial and non-financial performance in Ghana.
(Laghari, Ahmed, & Garcı´a, 2023)	- China - Financial Firms	- Financial performance - Non-financial performance	To investigate the impact of changes in cash flow measures and metrics on firm financial performance.	- Survey - GEE	The findings show that decline in cash flow bring significant positive improvements in the financial performance of firms.
(Makame et al., 2023)	- Zanzibar - SMEs	- UTAUT - TAM	Technological readiness as mediator to adoption of E-government services in Zanzibar SMEs	- Survey - PLS-SEM	The results displayed that technological readiness play a significant mediating role in the relationship of both government policies and ICT with e-government services adoption.

(Pavlović, Rašković-Depalov, & Milovanović, 2023)	- Serbian - MSMEs	- Non-financial performance	To test the correlation of knowledge and innovation culture and non-financial performance indicators	- Survey - SPSS	Data analysis showed a significant correlation exists between dependent and independent variables.
(Yadegaridehkordi et al., 2023)	- Malaysia - SMEs	- TOE - Financial performance	To investigate the determinants financial performance of manufacturing SMEs.	- Survey - SPSS - PLS-SEM - ANN	This study indicates that green entrepreneurial orientation influences SMEs' performance in terms finance, and other aspects.
(Zhong & Hee, 2023)	- China - Service firms	- TOE - Company performance	TOE-based innovation model to investigate Industry 4.0.	- Survey - PLS-SEM	Results identified that technology adoption can be determined TOE factors, and technology adoption can indirectly influence company performance.
(Abbasi G., Rahim, Wu, Iranmanesh, & Keong, 2022)	- Malaysia - SMEs	- TOE - Social media adoption	To identify determinants of SMEs' social media marketing adoption by considering the competitive industry as a moderator.	- Survey - PLS - ANN	The results in this study showed that competitive industry moderates the relationship between the environmental factors.
(Dadhich & Hiran, 2022)	- India - SMEs	- TOE - Operating performance	To examine the effect of TOE on Corporate Environment Sustainability.	- Survey - PLS-SEM - ANN	The findings reveal that corporate environmental sustainability plays a significant role in shaping the relationships between TOE and SMEs' operating performance.
(Jilani, Moniruzzaman, Mouri Dey, Alam, & Uddin, 2022)	- Bangladesh	- TOE - Mobile application adoption	To investigate the behavioural intention to adopt mobile health applications.	- Survey - PLS-SEM	Results are significantly associated with the trialability which subsequently influence behavioral intention to use mHealth apps.
(Lee & Voon, 2022)	- Sarawak - Service sector	- Performance of service sector	This paper presents the performance of service sector in Sarawak and the challenges of the service sector.	- Secondary data	The service sector is an important contributor to Sarawak GDP, and employment.

(Nguyen, Le, & Vu, 2022)	- Vietnam - Online Retailer	- TOE - ORE adoption - Business performance	To analyse the TOE dimensions that facilitate and hinder ORE adoption and business performance.	- Survey - PLS-SEM - ANN	The findings reveal that ORE adoption is successfully affected by TOE, and business performance is significantly explicated by firm age.
(Siagian, Riesmiyantiningtias, & Amalia, 2022)	- Indonesia - SMEs	- TOE - Social media adoption - Performance	To determine the effect of social media adoption on the performance of MSMEs.	- Survey - PLS-SEM	This research produced a model to measure the adoption of social media on the performance of MSMEs by utilizing context of TOE.
(Mujahed, Ahmed, & Samikon, 2022)	- Palestine - SMEs	- TOE - Mobile banking adoption	To examine the determinant factors that influence the adoption of mobile banking by SMEs in Palestine.		The findings revealed SMEs factors, enabling environment and business are the main determinant affecting intention to adopt mobile banking.
(Mustafa, Saleem, & Dost, 2021)	- Pakistan Manufacturing sector	- Organisation performance	Solving simultaneous engagement in both opportunities seeking and advantage-seeking behaviours faced by the organisations operating	- Survey - PLS-SEM -	This empirical investigation shows that dynamic capabilities are essential elements that influence the organisation's opportunity-seeking and advantage-seeking behaviors.
(Qalati, Li, Ahmed, Mirani, & Khan, 2021)	- Pakistan - SMEs	- TOE - Technology adoption - Performance	To extend the previous work of TOE characteristics.	- Survey - SPSS - PLS-SEM	The findings of the study indicate that TOE play effective roles for SME performance.
(Ahmad & Jamil, 2020)	- Malaysia - Micro-enterprise	- Financial performance - Non-financial performance	To examine performance of micro-enterprise in terms of financial and nonfinancial aspects.	- Survey - SPSS	The result shows micro-enterprises have good financial and nonfinancial performance, but they perform better in term of nonfinancial rather than the financial aspect.

(Akbar, 2020)	- Malaysia - SMEs	- DOI - Instagram adoption - Financial performance - Non-financial performance	To study factors which affect SMEs Instagram use for business and its subsequent impact on financial and non-financial performance	- Survey - PLS-SEM	The results indicated that Instagram for use of business has a strong positive effect on the financial performance and non-financial performance of SMEs.
(Chege and Wang, 2020)	- Kenya - SMEs	- TOE - Performance	To evaluate the association between technology innovation and its impact on SMEs performance.	- Survey - PLS-SEM	The results of the survey show that technological innovation have a positive impact on the performance of the company.
(Habiboglu, Oztek, & Pirtini, 2020)	- Case Study	- TOE - Marketing management	To analyse the previous research in social sciences utilizing the content analysis using TOE framework to be used for marketing management.	- Literature review - 33 studies - SPSS	Study revealed the most used sub-dimensions for TOE.
(Lee, Wang, & Ho, 2020)	- Developing countries - SMEs	- Financial inclusion - Sales growth	To examines the effect of financial inclusion on firms' sales growth in developing countries and investigates how this effect varies depending on different subsamples.	- Survey - Secondary Data	This paper provides evidence for the impact of financial inclusion on sales growth for firms of developing countries.
(Li, 2020)	- Hong Kong - SMEs	- TOE - Business environment	This study examined the equivalence of TOE framework and the well proven behavioural models.	- Survey	The results add to justifications for applying TOE framework in practical business environment.
(Bagheri et al., 2019)	- United Kingdom - SMEs	- Technological Innovation - International Firm Performance	To examines the relationship between internationalization orientation and international performance of SMEs with the mediating effect of technological innovation	- Survey - SEM - AMOS	The study found that technological innovation positively mediates the effect of internationalisation orientation on international firm performance, particularly for the SMEs exhibiting moderate levels of technological innovation activities

(Omar, Mojolou, & Kasuma, 2015)	- Kuching, Sarawak - Services - SMEs	- TOE - E-business adoption	To identify TOE factors that influence e-business adoption among homestays in Kuching, Sarawak	- Survey - SPSS	The findings indicated that organisational factor has the most significant influence on e-business adoption among the homestay owners in Kuching, Sarawak.

Appendix B:

Sample of Questionnaire



Dear respondents,

I'm a student at the University Malaysia Sarawak (UNIMAS), Faculty of Economics and Business, pursuing a Doctor of Business Administration. I'm currently conducting a study on ***"The Technological-Organisational-Environmental Factors and Performance of SMEs in the Sarawak Service sector"*** for my dissertation.

I'd appreciate it if you could help me complete this questionnaire. Your response is important for me to complete my study. This questionnaire will take a few minutes from you, and all the information collected from this survey will be strictly kept private and confidential in all cases. This questionnaire gathers information solely for academic purposes.

Thank you for your participation and cooperation in this study.

Your faithfully,

Fong Yee Ling

Student ID: 21040019

Tel. No.: 016-8834910

E-mail: elynfongfame@gmail.com

Part A: General Information

This part will collect general information from you.

*Please choose **ONE (1)** answer only.*

1. Gender

- ☐ Male
- ☐ Female

2. Age

- ☐ Less than 25
- ☐ 26 – 35
- ☐ 36 – 45
- ☐ 46 – 55
- ☐ Above 56

3. Education Level

- ☐ Basic/ Secondary
- ☐ Undergraduate
- ☐ Master's
- ☐ PhD/ Doctorate
- ☐ Others, please specify _____

4. Position

- ☐ Owner/ Director
- ☐ Executive
- ☐ Manager

5. What is the nature of your business?

- ☐ Utilities, Transportation, Information &Communication
- ☐ Wholesale and Retail, Food and Beverage and Accommodation
- ☐ Finance and Insurance, Real Estate and Business Service
- ☐ Government Service
- ☐ Others services, please specify _____

6. Type of Business Entity

- ☐ Sole Proprietorship
- ☐ Partnership
- ☐ Limited Liability Partnership (LLP)
- ☐ Private Limited Company (Sdn. Bhd.)

7. Duration in Operation

- ☐ Less than 2 years
- ☐ 2 to 4 years
- ☐ 5 to 7 years
- ☐ 8 to 10 years
- ☐ More than 10 years

8. No. of Employees

	0 – 4 (Micro)
	5 – 29 (Small)
	30 – 75 (Medium)

9. Annual Sales

	Less than RM300,000
	RM300,000 – RM3 Millions
	RM3 Millions – RM20 Millions

10. Please indicate which type of technology your company adopted:

You may choose more than **ONE (1)** answer.

	Cloud Computing (E.g.: Storage, Software, AI-powered tools, Servers, etc.)
	Robotics
	Social Media (E.g.: LinkedIn, Facebook, Instagram, etc.)
	E-commerce (Shopee, Lazada, etc.)
	Financial Technology (Fintech)
	Enterprise Resource Planning, ERP (Software use to manage day-to-day business activities such as accounting, procurement, project management, risk management and compliance, and supply chain operations)
	Big Data Analytic
	Others. Please Specify: _____

11. Duration of Technology Adoption

	Less than 12 months (1 year)
	13 to 24 months (2 years)
	25 – 36 months (3 years)
	37 to 60 months (5 years)
	More than 60 months (5 years)

12. Category of Technology Adoption

	Innovator willing to take risks and have more financial flexibility
	Early Adopter watches for new innovations in the market but is notably more selective than innovators when making decisions
	Early Majority more conservative and risk-averse when it comes to financial investment decisions and look toward influencers and early adopters for feedback
	Late Majority catch-on a technology adoption well after the average SMEs does usually due to a high level of scepticism about the benefits of a new product or service and having less financial flexibility than earlier adopters
	Laggard refuse to change and are not influenced by opinion leaders as they tend to focus more on the reliability of technology which already in-use, and they may have very little financial flexibility to take risks when it comes to technology adoption

Part B: Technology-Organisation-Environment Factors

Please evaluate your company's technology-organisation-environment factors on technology adoption in the following areas:

The numbering below represents your opinion, as indicated:

1	*Strongly Disagree*	**2**	*Disagree*	**3**	*Neutral*	**4**	*Agree*	**5**	*Strongly Agree*

13. Technology Adoption

	1	2	3	4	5
TA1: My company adopts technology					
TA2: My company started using technology regularly					
TA3: My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing					
TA4: My company would highly recommend technology adoption for other enterprises					

14. Technological Factors

	1	2	3	4	5
Relative Advantage					
RA1: Technology adoption makes my company's business more efficient					
RA2: Technology adoption lowers my company's costs					
RA3: Technology adoption improves my company's customer service					
RA4: Technology adoption attracts new sales, new customers, and/or new markets to my company					
Compatibility					
CP1: Technology adoption fits with my company's needs for existing production and service processes					
CP2: Technology adoption fits with the needs of my company's existing management system					
CP3: Technology adoption fits with my company's existing organisational structure					
CP4: Technology adoption fits with my company's existing technical needs					
CP5: Technology adoption fits with my company's current business needs					
CP6: Technology adoption fits with the needs of my company's existing customers					
Complexity					
CX1: The use of technology would be easy for my company					
CX2: Technology adoption would be easy on marketing activities for my company					
CX3: The skills needed to use technology would be easy for employees in my company					
CX4: It is easy to become skilled at using technology for my company					

15. Organisational Factors

	1	2	3	4	5
Firm Size					
FS1: The capital of my company is higher compared to the other companies					
FS2: The revenue of my company is higher compared to the other companies					
FS3: The number of employees at my company is higher compared to the other companies					
Top Management Support					
TS1: Top management in my company believes that introducing technologies is strategically important					
TS2: Top management in my company is willing to invest in the introduction of technology					
TS3: Top management in my company is willing to take responsibility for the process of introducing technology					
TS4: Top management in my company encourages the updating of the company's technology to improve competitiveness					
TS5: Top management in my company actively encourages the use of technology to gain competitive advantages					
TS6: Top management in my company is willing to provide relevant training					
Financial Resources					
FR1: Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies					
FR2: Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)					
FR3: My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)					

16. Environmental Factors

	1	2	3	4	5
Competitive Pressure					
CPP1: The adoption of technology for my company is due to pressure within the industry to upgrade technology					
CPP2: The adoption technology for my company is to improve competitiveness in the industry					
CPP3: Adopting technology for my company is an important strategy to compete in the current market					
CPP4: If technologies are not introduced in my company, customers may choose competitors' products					
CPP5: If technologies are not introduced, my company may suffer competitive disadvantages					
Customer Pressure					
CS1: Many customers for my company are keen that we should adopt the usage of technology					
CS2: My company relationship with customers would have suffered if we did not adopt the usage of technology					
CS3: Customers may consider my company as backward if we do not adopt the usage of technology					

CS4: Majority customers demand that my company establish strong relationships with them by adopting technology					
Government Support					
GS1: The government provides sufficient motivational programs for technology adoption					
GS2: The government provides varieties of grants for technology adoption					
GS3: The government offers subsidies for technology adoption					
GS4: The government is adequately driving the use of technology by providing incentives for its adoption					
GS5: The government demonstrates a strong commitment to promote technology adoption					

Part C: Performance of SMEs

How has your company's performance compared to your main competitors over the last three years (e.g., year 2021 - 2023) for the following areas?

The numbering below represents your company's performance as indicates:

1	*Much Worse*	**2**	*Worst*	**3**	*Neutral*	**4**	*Better*	**5**	*Much Better*

17. Performance of SME

	1	**2**	**3**	**4**	**5**
Financial Performance					
FP1: My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)					
FP2: My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)					
FP3: My company's financial performance measured by sales (e.g., revenue)					
FP4: My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)					
Non-Financial Performance					
NFP1: My company's non-financial performance measured by employee conditions on their skill and efficiency					
NFP2: My company's non-financial performance measured by employee conditions on their commitment and satisfaction					
NFP3: My company's non-financial performance measured by valued customers increased number of new customers					
NFP4: My company's non-financial performance measured by valued customers increased number of regular or loyal customers					
NFP5: My company's non-financial performance measured by product or service development on a larger number of products or services					
NFP6: My company's non-financial performance measured by product or service development and an increase in good-quality products or services					

-End of Survey-

Appendix C:

Summary of Pre-Test from Industry Experts

Item	Original Question(s)	R1	R2	R3	R4	R5	R6	Changes
A1	Gender	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A2	Age	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A3	Education Level	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A4	Position	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A5	Component of SME in Services Sector	What is the nature of your business?	No changes required	No changes required	Good to go	OK	Fair Use	Yes
A6	Type of Business Entity	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A7	Duration in Operation	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A8	Number of Employees	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A9	Annual Sales	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A10	Types of Technology Adopted	No changes required	Please indicate which type of technology your company adopted: You may choose more than ONE (1) answer	No changes required	Good to go	OK	Fair Use	Yes
A11	Duration of Technology Adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
A12	Category of Technology Adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

TA1	My company adopts technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TA2	My company started using technology regularly	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TA3	My company adopts technology to support business function such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partner and information sharing	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TA4	My company would highly recommend technology adoption for other enterprises	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
RA1	Technology adoption makes my company's business more efficient	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
RA2	Technology adoption lowers my company's costs	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
RA3	Technology adoption improves my company's customer service	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
RA4	Technology adoption attracts new sales, new customers, and/or new markets to my company	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

CP1	Technology adoption fits with my company's needs for existing production/ service process	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CP2	Technology adoption fits with the needs of my company's existing management system	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CP3	Technology adoption fits with my company's existing organisational structure	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CP4	Technology adoption fits with my company's existing technical needs	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CP5	Technology adoption fits with my company's current business needs	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CP6	Technology adoption fits with the needs of my company's existing customers	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CX1	The use of technology would be easy for my company	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CX2	Technology adoption would be easy on marketing activities for my company	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CX3	The skills needed to use on technology would be easy	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

	for employees in my company							
CX4	It is easy to become skilled at using technology for my company	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FS1	The capital of my company is higher compared to the other companies	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FS2	The revenue of my company is higher compared to the other companies	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FS3	The number of employees at my company is high compared to the other companies	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TS1	Top management in my company believes that introducing technologies is strategically important	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TS2	Top management in my company is willing to invest in the introduction of technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TS3	Top management in my company is willing to take responsibility in the process of introducing technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

TS4	Top management in my company encourages the updating of the company's technology to improve competitiveness	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TS5	Top management in my company actively encourages the use of technology to gain competitive advantages	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
TS6	Top management in my company is willing to provide relevant training	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FR1	Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FR2	Financial support (loan, grant, etc.) for my company on adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FR3	My company will make adoption of technology more seriously if it received adequate financial support (loan, grant, etc.) from supporting	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

	institutions (e.g., government, bank, etc.)							
CPP1	The adoption of technology for my company is due to pressure within the industry to upgrade technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CPP2	The adoption technology for my company is to improve competitiveness in the industry	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CPP3	Adopting technology for my company is an important strategy to compete in the current market	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CPP4	If technologies are not introduced in my company, customers may choose competitors' products	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CPP5	If technologies are not introduced, my company may suffer competitive disadvantages	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CS1	Many customers for my company are keen that we should adopt the usage of technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CS2	My company relationship with customers would	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

	have suffered if we did not adopt the usage of technology							
CS3	Customers may consider my company as backward if we do not adopt the usage of technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
CS4	Majority customers demand that my company establish strong relationships with them by adopting technology	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
GS1	The government provides sufficient motivational programs for technology adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
GS2	The government provides varieties of grants for technology adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
GS3	The government offers subsidies for technology adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
GS4	The government is adequately driving the use of technology by providing incentives for its adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
GS5	The government demonstrates a strong commitment to promote technology adoption	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

FP1	My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FP2	My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FP3	My company's financial performance measured by sales (e.g., revenue)	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
FP4	My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
NFP1	My company's non-financial performance measured by employee conditions on their skill and efficiency	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
NFP2	My company's non-financial performance measured by employee conditions on their commitment and satisfaction	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
NFP3	My company's non-financial performance	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

	measured by valued customers increased number of new customers							
NFP4	My company's non-financial performance measured by valued customers increased number of regular or loyal customers	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
NFP5	My company's non-financial performance measured by product or service development on a larger number of products or services	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No
NFP6	My company's non-financial performance measured by product or service development and an increase in good-quality products or services	No changes required	No changes required	No changes required	Good to go	OK	Fair Use	No

Appendix D:

Data Analyses Report for Pilot Test extracted from SPSS Version 29

i. Demographic Statistics for Pilot Test

Frequencies

Notes

Output Created		01-APR-2024 20:42:48
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Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
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	Split File	<none>
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	Cases Used	Statistics are based on all cases with valid data.
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Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00

Statistics

		Gender	Age	Education Level	Position	What is the nature of your business?	Type of Business Entity	Duration in Operation
N	Valid	30	30	30	30	30	30	30
	Missing	0	0	0	0	0	0	0

Statistics

		Number of Employees	Annual Sales
N	Valid	30	30
	Missing	0	0

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	18	60.0	60.0	60.0
	Female	12	40.0	40.0	100.0
	Total	30	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 25	6	20.0	20.0	20.0
	26 - 35	13	43.3	43.3	63.3
	36 - 45	7	23.3	23.3	86.7
	46 - 55	3	10.0	10.0	96.7
	Above 56	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Basic/ Secondary	5	16.7	16.7	16.7
	Undergraduate	23	76.7	76.7	93.3
	Master's	1	3.3	3.3	96.7
	PhD/ Doctorate	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owner/ Director	11	36.7	36.7	36.7
	Executive	6	20.0	20.0	56.7
	Manager	13	43.3	43.3	100.0
	Total	30	100.0	100.0	

What is the nature of your business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Utilities, Transportation, Information & Communication	8	26.7	26.7	26.7
	Wholesale and Retail, Food and Beverage and Accommodation	12	40.0	40.0	66.7
	Finance and Insurance, Real Estate and Business Service	8	26.7	26.7	93.3
	Government Service	1	3.3	3.3	96.7
	Others services	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Type of Business Entity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sole Proprietorship	14	46.7	46.7	46.7
	Partnership	10	33.3	33.3	80.0
	Limited Liability Partnership (LLP)	1	3.3	3.3	83.3
	Private Limited Company (Sdn. Bhd.)	5	16.7	16.7	100.0
	Total	30	100.0	100.0	

Duration in Operation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2 years	11	36.7	36.7	36.7
	2 to 4 years	12	40.0	40.0	76.7
	5 to 7 years	4	13.3	13.3	90.0
	8 to 10 years	1	3.3	3.3	93.3
	More than 10 years	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Number of Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 – 4 (Micro)	16	53.3	53.3	53.3
	5 – 29 (Small)	10	33.3	33.3	86.7
	30 – 75 (Medium)	4	13.3	13.3	100.0
	Total	30	100.0	100.0	

Annual Sales

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than RM300,000	25	83.3	83.3	83.3
	RM300,000 – RM3 Millions	1	3.3	3.3	86.7
	RM3 Millions – RM20 Millions	4	13.3	13.3	100.0
	Total	30	100.0	100.0	

Multiple Response

Notes

Output Created		01-APR-2024 20:44:23
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		Running 2 Pilot.sav
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	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
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Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$A10[a]	30	100.0%	0	0.0%	30	100.0%

a. Dichotomy group tabulated at value 1.

$A10 Frequencies

		Responses		
		N	Percent	Percent of Cases
$A10[a]	Cloud Computing	25	29.1%	83.3%
	Social Media	26	30.2%	86.7%
	E-commerce	7	8.1%	23.3%
	Financial Technology	7	8.1%	23.3%
	Enterprise Resource Planning	8	9.3%	26.7%
	Big Data Analytic	13	15.1%	43.3%
Total		86	100.0%	286.7%

a. Dichotomy group tabulated at value 1.

Frequencies

Notes

Output Created		01-APR-2024 20:44:49
Comments		
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	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=A11 A12 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Statistics

		Duration of Technology Adoption	Category of Technology Adoption
N	Valid	30	30
	Missing	0	0

Frequency Table

Duration of Technology Adoption

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 12 months (1 year)	7	23.3	23.3	23.3
	13 to 24 months (2 years)	14	46.7	46.7	70.0
	25 – 36 months (3 years)	8	26.7	26.7	96.7
	More than 60 months (5 years)	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Category of Technology Adoption

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Innovator	1	3.3	3.3	3.3
	Early Adopter	10	33.3	33.3	36.7
	Early Majority	9	30.0	30.0	66.7
	Late Majority	4	13.3	13.3	80.0
	Laggard	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

ii. KMO and Bartlett's Test

Factor Analysis Technological

Notes

Output Created		01-APR-2024 23:41:24
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES RA1 RA2 RA3 RA4 CP1 CP2 CP3 CP4 CP5 CP6 CX1 CX2 CX3 CX4 /MISSING LISTWISE /ANALYSIS RA1 RA2 RA3 RA4 CP1 CP2 CP3 CP4 CP5 CP6 CX1 CX2 CX3 CX4 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.77
	Elapsed Time	00:00:01.00
	Maximum Memory Required	25128 (24.539K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.731
Bartlett's Test of Sphericity	Approx. Chi-Square	320.646
	df	91
	Sig.	<.001

Communalities

	Initial	Extraction
Technology adoption makes my company's business more efficient	1.000	.713
Technology adoption lowers my company's costs	1.000	.794
Technology adoption improves my company's customer service	1.000	.843
Technology adoption attracts new sales, new customers, and/or new markets to my company	1.000	.583
Technology adoption fits with my company's needs for existing production and service processes	1.000	.769
Technology adoption fits with the needs of my company's existing management system	1.000	.844
Technology adoption fits with my	1.000	.861

company's existing organisational structure		
Technology adoption fits with my company's existing technical needs	1.000	.840
Technology adoption fits with my company's current business needs	1.000	.860
Technology adoption fits with the needs of my company's existing customers	1.000	.794
The use of technology would be easy for my company	1.000	.650
Technology adoption would be easy on marketing activities for my company	1.000	.907
The skills needed to use technology would be easy for employees in my company	1.000	.794
It is easy to become skilled at using technology for my company	1.000	.841

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.258	51.846	51.846	7.258	51.846	51.846	4.192
2	1.538	10.986	62.832	1.538	10.986	62.832	2.361
3	1.264	9.026	71.858	1.264	9.026	71.858	2.314
4	1.034	7.384	79.242	1.034	7.384	79.242	2.227
5	.739	5.277	84.519				
6	.622	4.444	88.962				
7	.388	2.773	91.735				
8	.367	2.625	94.360				
9	.276	1.973	96.333				
10	.185	1.325	97.658				
11	.158	1.131	98.789				
12	.084	.602	99.391				
13	.044	.315	99.706				
14	.041	.294	100.000				

Total Variance Explained

	Rotation Sums of Squared Loadings	
Component	% of Variance	Cumulative %
1	29.942	29.942
2	16.866	46.807
3	16.526	63.333
4	15.908	79.242
5		
6		
7		
8		
9		
10		

11		
12		
13		
14		

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component			
	1	2	3	4
Technology adoption makes my company's business more efficient	.627			
Technology adoption lowers my company's costs		.707		
Technology adoption improves my company's customer service	.559		.553	
Technology adoption attracts new sales, new customers, and/or new markets to my company	.681			
Technology adoption fits with my company's needs for existing production and service processes	.870			
Technology adoption fits with the needs of my company's existing management system	.822			
Technology adoption fits with my company's existing organisational structure	.773			
Technology adoption fits with my company's existing technical needs	.854			
Technology adoption fits with my company's current business needs	.844			
Technology adoption fits with the needs of my company's existing customers	.863			
The use of technology would be easy for my company	.684			
Technology adoption would be easy on marketing activities for my company	.660			.640
The skills needed to use technology would be easy for employees in my company	.592	-.525		
It is easy to become skilled at using technology for my company	.620			

Extraction Method: Principal Component Analysis.[a]

a. 4 components extracted.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
Technology adoption makes my company's business more efficient				.691
Technology adoption lowers my company's costs				.844
Technology adoption improves my company's customer service				.776
Technology adoption attracts new sales, new customers, and/or new markets to my company			.596	
Technology adoption fits with my	.673			

company's needs for existing production and service processes				
Technology adoption fits with the needs of my company's existing management system	.834			
Technology adoption fits with my company's existing organisational structure	.886			
Technology adoption fits with my company's existing technical needs	.836			
Technology adoption fits with my company's current business needs	.737		.543	
Technology adoption fits with the needs of my company's existing customers	.614		.558	
The use of technology would be easy for my company		.538		
Technology adoption would be easy on marketing activities for my company			.874	
The skills needed to use technology would be easy for employees in my company		.841		
It is easy to become skilled at using technology for my company		.869		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
[a]

a. Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4
1	.703	.409	.453	.366
2	.033	-.632	-.101	.768
3	-.610	.600	-.014	.518
4	-.365	-.271	.886	-.091

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Factor Analysis Organisational

Notes

Output Created		01-APR-2024 23:42:33
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES FS1 FS2 FS3 TS1 TS2 TS3 TS4 TS5 TS6 FR1 FR2 FR3 /MISSING LISTWISE /ANALYSIS FS1 FS2 FS3 TS1 TS2 TS3 TS4 TS5 TS6 FR1 FR2 FR3

		/PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.22
	Elapsed Time	00:00:00.00
	Maximum Memory Required	18976 (18.531K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.759
Bartlett's Test of Sphericity	Approx. Chi-Square	304.575
	df	66
	Sig.	<.001

Communalities

	Initial	Extraction
The capital of my company is higher compared to the other companies	1.000	.897
The revenue of my company is higher compared to the other companies	1.000	.897
The number of employees at my company is higher compared to the other companies	1.000	.750
Top management in my company believes that introducing technologies is strategically important	1.000	.599
Top management in my company is willing to invest in the introduction of technology	1.000	.860
Top management in my company is willing to take responsibility for the process of introducing technology	1.000	.841
Top management in my company encourages the updating of the company's technology to improve competitiveness	1.000	.861
Top management in my company actively encourages the use of technology to gain competitive advantages	1.000	.861
Top management in my company is willing to provide relevant training	1.000	.779
Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	1.000	.937
Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	1.000	.923
My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	1.000	.585

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.392	53.266	53.266	6.392	53.266	53.266	4.672
2	2.205	18.379	71.645	2.205	18.379	71.645	2.862
3	1.193	9.944	81.589	1.193	9.944	81.589	2.256
4	.643	5.360	86.949				
5	.347	2.890	89.839				
6	.336	2.800	92.639				
7	.308	2.569	95.209				
8	.222	1.848	97.057				
9	.137	1.138	98.195				
10	.105	.877	99.072				
11	.075	.629	99.700				
12	.036	.300	100.000				

Total Variance Explained

Component	Rotation Sums of Squared Loadings	
	% of Variance	Cumulative %
1	38.935	38.935
2	23.854	62.789
3	18.800	81.589
4		
5		
6		
7		
8		
9		
10		
11		
12		

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component		
	1	2	3
The capital of my company is higher compared to the other companies	.523	.789	
The revenue of my company is higher compared to the other companies		.843	
The number of employees at my company is higher compared to the other companies	.576	.646	
Top management in my company believes that introducing technologies is strategically important	.712		
Top management in my company is willing to invest in the introduction of	.895		

technology			
Top management in my company is willing to take responsibility for the process of introducing technology	.915		
Top management in my company encourages the updating of the company's technology to improve competitiveness	.847		
Top management in my company actively encourages the use of technology to gain competitive advantages	.846		
Top management in my company is willing to provide relevant training	.817		
Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	.679		.604
Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	.656		.702
My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	.681		

Extraction Method: Principal Component Analysis.[a]

a. 3 components extracted.

Rotated Component Matrix[a]

	Component		
	1	2	3
The capital of my company is higher compared to the other companies		.932	
The revenue of my company is higher compared to the other companies		.945	
The number of employees at my company is higher compared to the other companies		.822	
Top management in my company believes that introducing technologies is strategically important	.743		
Top management in my company is willing to invest in the introduction of technology	.845		
Top management in my company is willing to take responsibility for the process of introducing technology	.703		
Top management in my company encourages the updating of the company's technology to improve competitiveness	.906		
Top management in my company actively encourages the use of technology to gain competitive advantages	.906		
Top management in my company is willing to provide relevant training	.788		
Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies			.898
Financial support (loan, grant, etc.) for my company on the adoption of			.904

technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)			
My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	.633		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
[a]

a. Rotation converged in 5 iterations.

Component Transformation Matrix

Component	1	2	3
1	.805	.396	.442
2	-.331	.918	-.220
3	-.492	.030	.870

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Factor Analysis Environmental

Notes

Output Created		01-APR-2024 23:43:45
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES CPP1 CPP2 CPP3 CPP4 CPP5 CS1 CS2 CS3 CS4 GS1 GS2 GS3 GS4 GS5 /MISSING LISTWISE /ANALYSIS CPP1 CPP2 CPP3 CPP4 CPP5 CS1 CS2 CS3 CS4 GS1 GS2 GS3 GS4 GS5 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.30
	Elapsed Time	00:00:01.00
	Maximum Memory Required	25128 (24.539K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.827
Bartlett's Test of Sphericity	Approx. Chi-Square	340.832
	df	91
	Sig.	<.001

Communalities

	Initial	Extraction
The adoption of technology for my company is due to pressure within the industry to upgrade technology	1.000	.819
The adoption technology for my company is to improve competitiveness in the industry	1.000	.738
Adopting technology for my company is an important strategy to compete in the current market	1.000	.629
If technologies are not introduced in my company, customers may choose competitors' products	1.000	.658
If technologies are not introduced, my company may suffer competitive disadvantages	1.000	.477
Many customers for my company are keen that we should adopt the usage of technology	1.000	.773
My company relationship with customers would have suffered if we did not adopt the usage of technology	1.000	.735
Customers may consider my company as backward if we do not adopt the usage of technology	1.000	.650
Majority customers demand that my company establish strong relationships with them by adopting technology	1.000	.761
The government provides sufficient motivational programs for technology adoption	1.000	.773
The government provides varieties of grants for technology adoption	1.000	.900
The government offers subsidies for technology adoption	1.000	.873
The government is adequately driving the use of technology by providing incentives for its adoption	1.000	.786
The government demonstrates a strong commitment to promote technology adoption	1.000	.903

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.917	56.549	56.549	7.917	56.549	56.549	4.678
2	1.547	11.053	67.601	1.547	11.053	67.601	4.283
3	1.011	7.218	74.819	1.011	7.218	74.819	1.514
4	.864	6.169	80.988				
5	.640	4.573	85.561				
6	.509	3.633	89.194				
7	.427	3.046	92.240				
8	.406	2.904	95.144				

9	.232	1.657	96.801				
10	.162	1.155	97.956				
11	.100	.717	98.673				
12	.080	.570	99.243				
13	.059	.422	99.665				
14	.047	.335	100.000				

Total Variance Explained

	Rotation Sums of Squared Loadings	
Component	% of Variance	Cumulative %
1	33.415	33.415
2	30.589	64.005
3	10.815	74.819
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component		
	1	2	3
The adoption of technology for my company is due to pressure within the industry to upgrade technology			.755
The adoption technology for my company is to improve competitiveness in the industry	.594	.554	
Adopting technology for my company is an important strategy to compete in the current market	.725		
If technologies are not introduced in my company, customers may choose competitors' products	.808		
If technologies are not introduced, my company may suffer competitive disadvantages	.588		
Many customers for my company are keen that we should adopt the usage of technology	.764		
My company relationship with customers would have suffered if we did not adopt the usage of technology	.749		
Customers may consider my	.772		

company as backward if we do not adopt the usage of technology			
Majority customers demand that my company establish strong relationships with them by adopting technology	.870		
The government provides sufficient motivational programs for technology adoption	.846		
The government provides varieties of grants for technology adoption	.919		
The government offers subsidies for technology adoption	.783		
The government is adequately driving the use of technology by providing incentives for its adoption	.773		
The government demonstrates a strong commitment to promote technology adoption	.805		

Extraction Method: Principal Component Analysis.[a]

a. 3 components extracted.

Rotated Component Matrix[a]

	Component		
	1	2	3
The adoption of technology for my company is due to pressure within the industry to upgrade technology			.893
The adoption technology for my company is to improve competitiveness in the industry		.575	.632
Adopting technology for my company is an important strategy to compete in the current market		.680	
If technologies are not introduced in my company, customers may choose competitors' products	.520	.582	
If technologies are not introduced, my company may suffer competitive disadvantages		.663	
Many customers for my company are keen that we should adopt the usage of technology		.828	
My company relationship with customers would have suffered if we did not adopt the usage of technology		.797	
Customers may consider my company as backward if we do not adopt the usage of technology		.691	
Majority customers demand that my company establish strong relationships with them by adopting technology	.623	.592	
The government provides sufficient motivational programs for technology adoption	.760		
The government provides varieties of grants for technology adoption	.813		
The government offers subsidies for technology adoption	.880		
The government is adequately driving the use of technology by providing incentives for its adoption	.839		
The government demonstrates a strong commitment to promote technology adoption	.924		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

[a]

a. Rotation converged in 5 iterations.

Component Transformation Matrix

Component	1	2	3
1	.703	.670	.239
2	-.691	.564	.452
3	.168	-.483	.860

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Factor Analysis Financial Performance

Notes

Output Created		01-APR-2024 23:44:06
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES FP1 FP2 FP3 FP4 /MISSING LISTWISE /ANALYSIS FP1 FP2 FP3 FP4 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.22
	Elapsed Time	00:00:01.00
	Maximum Memory Required	3008 (2.938K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.568
Bartlett's Test of Sphericity	Approx. Chi-Square	48.760
	df	6
	Sig.	<.001

Communalities

	Initial	Extraction
My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	1.000	.784
My company's financial performance	1.000	.672

measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)		
My company's financial performance measured by sales (e.g., revenue)	1.000	.436
My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	1.000	.576

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.468	61.710	61.710	2.468	61.710	61.710
2	.892	22.308	84.018			
3	.488	12.204	96.222			
4	.151	3.778	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	.886
My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	.820
My company's financial performance measured by sales (e.g., revenue)	.660
My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	.759

Extraction Method: Principal Component Analysis.[a]

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis Non-financial Performance

Notes

Output Created		01-APR-2024 23:44:42
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30

Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES NFP1 NFP2 NFP3 NFP4 NFP5 NFP6 /MISSING LISTWISE /ANALYSIS NFP1 NFP2 NFP3 NFP4 NFP5 NFP6 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.29
	Elapsed Time	00:00:00.00
	Maximum Memory Required	5704 (5.570K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.794
Bartlett's Test of Sphericity	Approx. Chi-Square	89.767
	df	15
	Sig.	<.001

Communalities

	Initial	Extraction
My company's non-financial performance measured by employee conditions on their skill and efficiency	1.000	.811
My company's non-financial performance measured by employee conditions on their commitment and satisfaction	1.000	.770
My company's non-financial performance measured by valued customers increased number of new customers	1.000	.830
My company's non-financial performance measured by valued customers increased number of regular or loyal customers	1.000	.857
My company's non-financial performance measured by product or service development on a larger number of products or services	1.000	.783
My company's non-financial performance measured by product or service development and an increase in good-quality products or services	1.000	.686

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.639	60.643	60.643	3.639	60.643	60.643	2.392
2	1.098	18.296	78.939	1.098	18.296	78.939	2.345

3	.475	7.914	86.853				
4	.335	5.585	92.438				
5	.250	4.168	96.606				
6	.204	3.394	100.000				

Total Variance Explained

	Rotation Sums of Squared Loadings	
Component	% of Variance	Cumulative %
1	39.863	39.863
2	39.076	78.939
3		
4		
5		
6		

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
My company's non-financial performance measured by employee conditions on their skill and efficiency	.650	.623
My company's non-financial performance measured by employee conditions on their commitment and satisfaction	.812	
My company's non-financial performance measured by valued customers increased number of new customers	.808	
My company's non-financial performance measured by valued customers increased number of regular or loyal customers	.697	-.609
My company's non-financial performance measured by product or service development on a larger number of products or services	.861	
My company's non-financial performance measured by product or service development and an increase in good-quality products or services	.822	

Extraction Method: Principal Component Analysis.[a]

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
My company's non-financial performance measured by employee conditions on their skill and efficiency	.900	
My company's non-financial performance measured by employee conditions on their commitment and satisfaction	.812	
My company's non-financial		.866

performance measured by valued customers increased number of new customers		
My company's non-financial performance measured by valued customers increased number of regular or loyal customers		.923
My company's non-financial performance measured by product or service development on a larger number of products or services	.757	
My company's non-financial performance measured by product or service development and an increase in good-quality products or services	.513	.650

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
[a]

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.714	.701
2	.701	-.714

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Factor Analysis Technology Adoption

Notes

Output Created		01-APR-2024 23:45:29
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/8. VIVA/0. SPSS Pilot Test/SPSS Data Running 2 Pilot.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES TA1 TA2 TA3 TA4 /MISSING LISTWISE /ANALYSIS TA1 TA2 TA3 TA4 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.29
	Elapsed Time	00:00:00.00
	Maximum Memory Required	3008 (2.938K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.738
Bartlett's Test of Sphericity	Approx. Chi-Square	35.508
	df	6
	Sig.	<.001

Communalities

	Initial	Extraction
My company adopts technology	1.000	.698
My company started using technology regularly	1.000	.730
My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	1.000	.595
My company would highly recommend technology adoption for other enterprises	1.000	.477

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.501	62.514	62.514	2.501	62.514	62.514
2	.658	16.458	78.972			
3	.544	13.588	92.560			
4	.298	7.440	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
My company adopts technology	.836
My company started using technology regularly	.855
My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	.771
My company would highly recommend technology adoption for other enterprises	.691

Extraction Method: Principal Component Analysis.[a]

a. 1 components extracted.

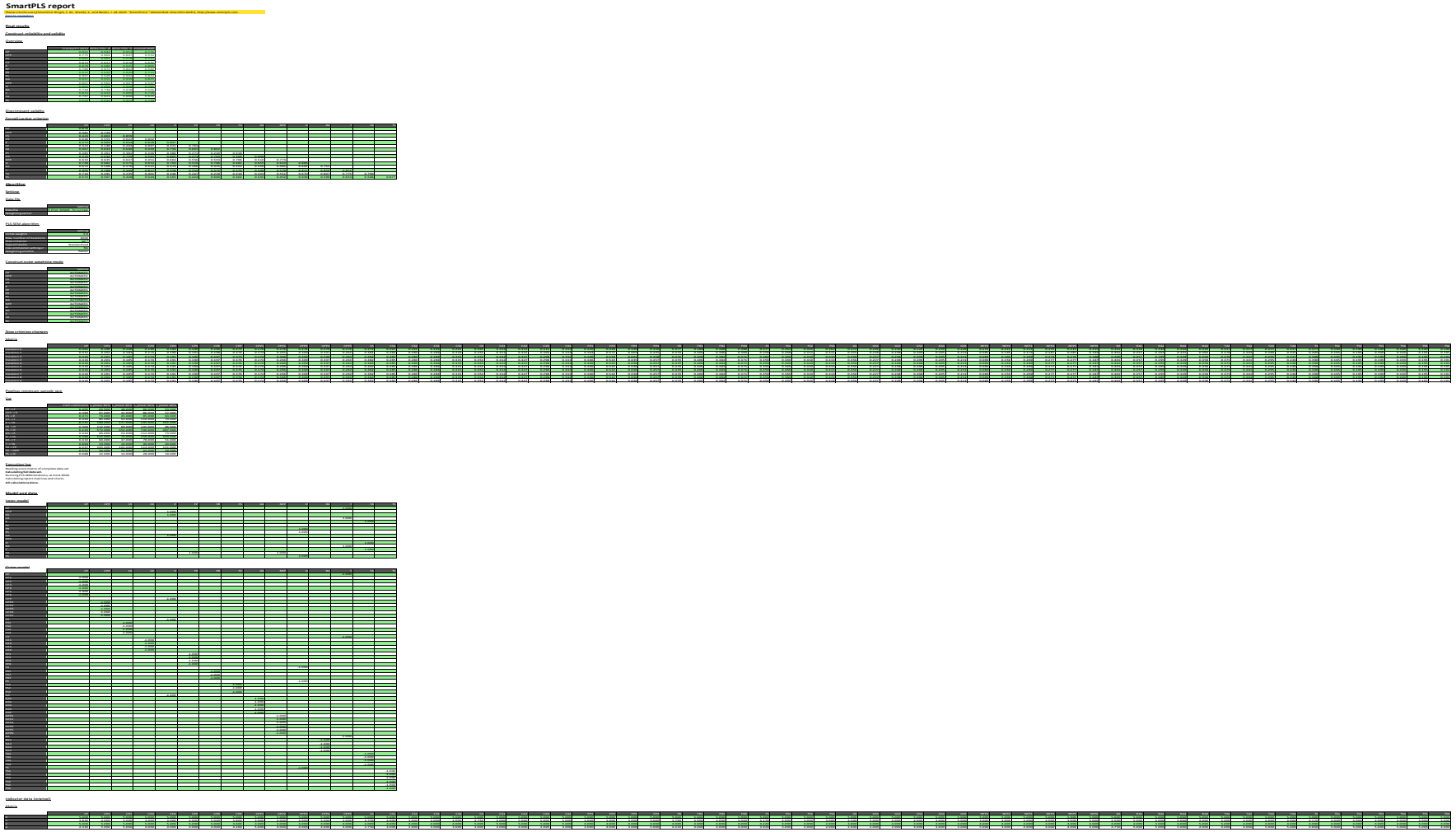
Rotated Component Matrix[a]

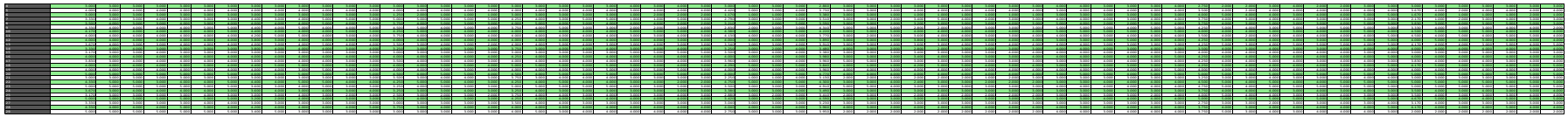
a. Only one component was extracted. The solution cannot be rotated.

Appendix E:

Data Analyses Report for Pilot Test extracted from SmartPLS 4.1

i. Factor Analysis for First-Order Model Reflective Measurement



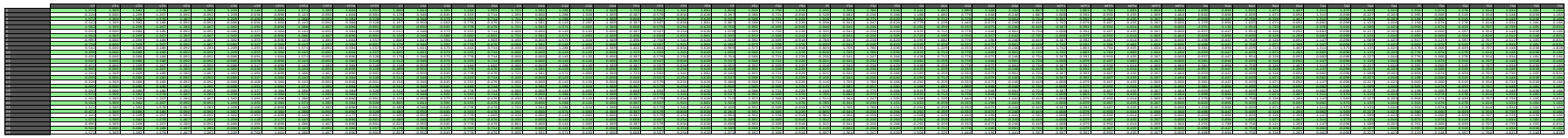


VIF descriptives

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
ABS	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ADL	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
AGE	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 2	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 3	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 4	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 5	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 6	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 7	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 8	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 9	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 10	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 11	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 12	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 13	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 14	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 15	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 16	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 17	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 18	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 19	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 20	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 21	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 22	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 23	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 24	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 25	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 26	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 27	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 28	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 29	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 30	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 31	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 32	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 33	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
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ANX 35	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 36	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
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ANX 38	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 39	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 40	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 41	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 42	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 43	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 44	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 45	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 46	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
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ANX 52	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 53	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 54	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 55	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 56	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 57	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 58	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 59	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 60	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 61	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 62	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 63	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 64	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 65	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 66	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 67	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 68	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 69	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 70	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 71	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 72	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 73	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 74	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 75	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 76	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 77	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 78	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 79	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 80	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 81	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 82	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 83	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 84	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 85	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 86	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 87	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 88	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 89	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 90	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 91	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 92	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 93	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
ANX 94	1	0.000	0.000	0.000	0.000	NaN	NaN	NaN	NaN
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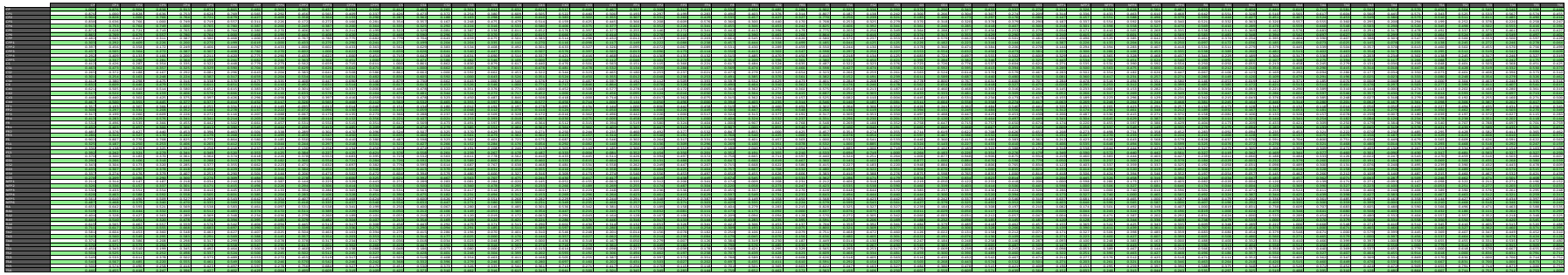
Indicator data (standardized)

Matrix

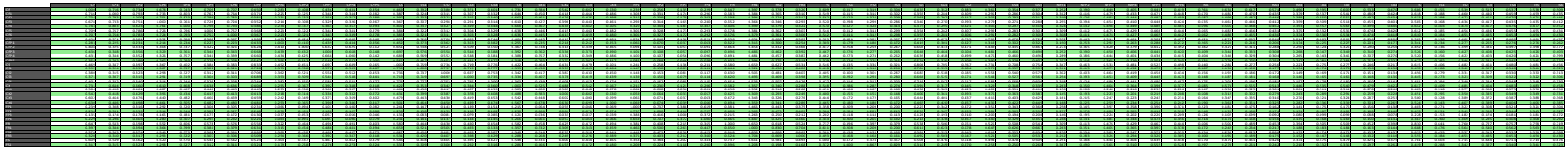


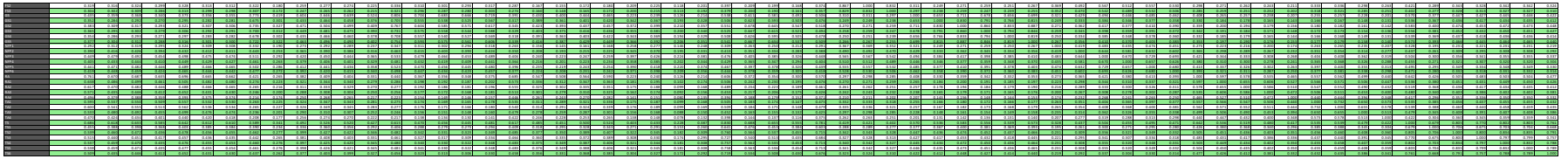
Indicator data (unstandardized)

Empirical correlation matrix

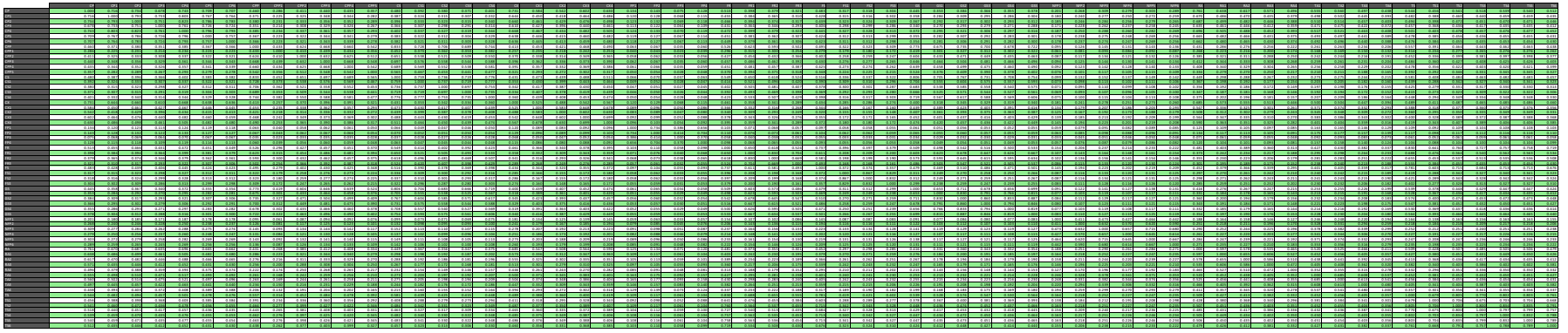


Model implied value and correlation matrix

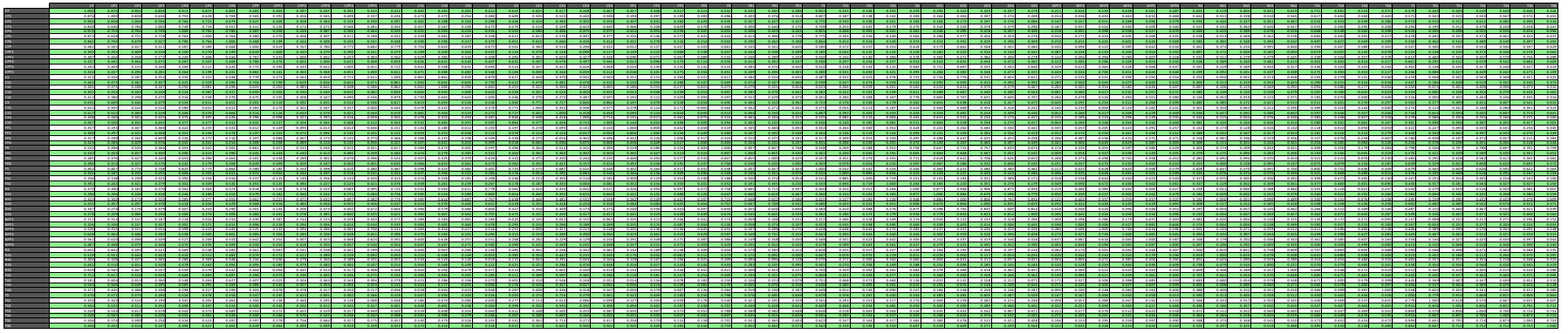




Model implied estimated correlation matrix



Standardized covariance matrix



ii. Factor Analysis for Second-Order Model Reflective Measurement

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

back to navigation

Final results

Construct reliability and validity

Overview

	Cronbach's alpha	ability (rho_a)	ability (rho_c)	tracted (AVE)
FP	0.789	0.863	0.840	0.580
NFP	0.867	0.904	0.898	0.598
TA	0.797	0.822	0.868	0.624
TOE	0.922	0.965	0.930	0.599

Discriminant validity

Fornell-Larcker criterion

	FP	NFP	TA	TOE
FP	0.761			
NFP	0.552	0.773		
TA	0.246	0.556	0.790	
TOE	0.412	0.689	0.761	0.774

Algorithm

Setting

Data file

	Setting
Data file	m Pilot 30SME - To run test
Weighting vector	-

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^7
Type of results	Standardized
Use Lohmoeller settings?	No
Weighting scheme	Factor

Construct outer weighting mode

	Setting
FP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TOE	AUTOMATIC

Stop criterion changes

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
Iteration 0	0.142	0.142	0.142	0.142	0.320	0.320	0.320	0.320	0.142	0.142	0.142	0.215	0.215	0.215	0.215	0.215	0.215	0.142	0.317	0.317	0.317	0.317	0.142
Iteration 1	0.188	0.127	0.059	0.118	0.164	0.571	0.003	0.445	0.095	0.224	0.058	0.085	0.148	0.272	0.287	0.281	0.184	0.211	0.377	0.352	0.304	0.214	0.162
Iteration 2	0.191	0.126	0.063	0.120	0.167	0.538	0.035	0.461	0.091	0.227	0.057	0.092	0.162	0.267	0.272	0.276	0.189	0.211	0.361	0.346	0.316	0.228	0.155
Iteration 3	0.190	0.126	0.063	0.119	0.167	0.547	0.022	0.459	0.091	0.227	0.057	0.091	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.315	0.225	0.157
Iteration 4	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156
Iteration 5	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156
Iteration 6	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156
Iteration 7	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156
Iteration 8	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156
Iteration 9	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156
Iteration 10	0.190	0.126	0.063	0.119	0.167	0.546	0.023	0.459	0.091	0.227	0.057	0.092	0.159	0.267	0.273	0.278	0.189	0.212	0.363	0.347	0.316	0.226	0.156

Posthoc minimum sample size

List

	Path coefficients	s, power 80%	s, power 80%	s, power 90%	s, power 90%
TA -> FP	0.246	166.000	102.000	215.000	142.000
TA -> NFP	0.556	33.000	21.000	43.000	28.000
TOE -> TA	0.761	18.000	11.000	23.000	15.000

Execution log
Reading score matrix of complete data set
Calculating full data set.
Running PLS-SEM iterations, at most 3000.
Calculating report matrices and charts.
All calculations done.

Model and data

Inner model

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Outer model

	FP	NFP	TA	TOE
CP				-1.000
CPP				-1.000
CS				-1.000
CX				-1.000
FP1	-1.000			
FP2	-1.000			
FP3	-1.000			
FP4	-1.000			
FR				-1.000
FS				-1.000
GS				-1.000
NFP1		-1.000		
NFP2		-1.000		
NFP3		-1.000		
NFP4		-1.000		
NFP5		-1.000		
NFP6		-1.000		
RA				-1.000
TA1			-1.000	
TA2			-1.000	
TA3			-1.000	
TA4			-1.000	
TS				-1.000

Indicator data (original)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
1	3.830	3.800	3.750	4.750	3.000	3.000	3.000	3.000	3.790	4.170	4.200	3.000	4.000	3.000	4.000	3.000	5.000	4.500	5.000	4.000	4.000	4.000	4.170
2	5.000	3.600	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.420	3.800	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
3	4.330	4.200	2.750	3.000	3.000	4.000	3.000	5.000	4.210	3.920	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
4	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	2.860	3.000	4.000	4.000	3.000	3.000	3.000	4.000	2.750	2.000	2.000	3.000	3.000	3.000
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.420	3.730	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.670
6	3.000	3.000	1.250	3.000	1.000	2.000	2.000	2.000	1.170	3.380	1.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	5.000	5.000	1.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	2.790	3.510	3.400	4.000	4.000	4.000	3.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	2.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.210	3.590	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.830
9	4.330	4.400	4.500	3.750	2.000	2.000	3.000	4.000	2.830	4.310	2.800	5.000	5.000	5.000	4.000	5.000	5.000	4.250	5.000	5.000	5.000	3.000	3.330
10	4.170	4.400	4.250	4.000	5.000	5.000	5.000	4.000	4.380	4.220	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	4.000	4.000	5.000	4.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.130	3.770	3.600	4.000	4.000	3.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	5.000	4.500
12	4.000	3.800	4.000	4.000	3.000	4.000	3.000	4.000	4.000	3.890	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	3.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	3.000	3.000	3.540	3.910	3.600	4.000	4.000	3.000	3.000	3.000	3.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	4.000	4.000	4.000	3.250	3.480	2.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	4.000	4.000	4.000	4.000
15	3.170	3.000	3.000	3.000	5.000	5.000	5.000	5.000	3.500	3.380	3.400	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	3.000	4.000	3.000
16	4.000	4.000	4.000	4.250	4.000	4.000	4.000	4.000	4.000	3.980	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	3.960	3.960	3.000	3.000	3.000	4.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.290	3.840	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	4.000	5.000	5.000	3.000	4.000	3.960	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.000
20	5.000	4.600	4.500	4.500	3.000	3.000	5.000	4.000	4.000	4.770	4.000	3.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	3.000	3.500	3.750	3.000	3.000	3.000	3.000	2.250	3.130	2.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	3.000	3.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.750	4.300	2.400	3.000	3.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	3.600	3.250	5.000	4.000	3.000	5.000	3.000	3.500	4.910	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.670	3.600	3.250	3.250	3.000	3.000	3.000	3.000	3.380	3.490	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	4.000	3.000	4.000	3.000	3.500
25	3.170	3.000	2.500	3.750	3.000	3.000	4.000	3.000	2.880	3.410	2.000	3.000	3.000	3.000	3.000	2.000	4.000	4.000	3.000	4.000	3.000	3.000	3.500
26	5.000	3.200	3.250	4.250	4.000	4.000	4.000	4.000	3.420	4.590	3.000	3.000	3.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	4.670
27	3.330	3.000	3.000	3.500	3.000	3.000	3.000	3.000	3.040	3.230	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	4.040	3.960	4.000	4.000	3.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	2.750	3.950	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000

MV descriptives

	Mean	Median	Observed min	Observed max	ard deviation	xcess kurtosis	Skewness	rvations used	s test statistic	Mises p value
CP	3.977	4.000	3.000	5.000	0.651	-0.946	0.224	30.000	0.085	0.169
CPP	3.820	3.900	3.000	5.000	0.550	-0.802	-0.080	30.000	0.089	0.153
CS	3.617	3.750	1.250	5.000	0.749	2.088	-0.744	30.000	0.061	0.351
CX	4.000	4.000	3.000	5.000	0.581	-0.279	0.000	30.000	0.163	0.015
FP1	3.367	3.000	1.000	5.000	0.948	1.051	-0.583	30.000	0.357	0.000
FP2	3.533	4.000	1.000	5.000	0.921	0.635	-0.507	30.000	0.300	0.000

FP3	3.767	4.000	2.000	5.000	0.920	-0.664	-0.310	30.000	0.269	0.001
FP4	3.500	3.500	2.000	5.000	0.806	-0.347	0.000	30.000	0.352	0.000
FR	3.583	3.665	1.170	5.000	0.777	1.688	-0.891	30.000	0.075	0.230
FS	3.901	3.915	2.860	5.000	0.510	-0.136	0.302	30.000	0.053	0.458
GS	3.240	3.300	1.000	5.000	0.822	0.675	-0.518	30.000	0.069	0.281
NFP1	3.733	4.000	3.000	5.000	0.727	-0.972	0.480	30.000	0.432	0.000
NFP2	3.733	4.000	3.000	5.000	0.680	-0.770	0.409	30.000	0.473	0.000
NFP3	3.700	4.000	2.000	5.000	0.737	-0.312	0.042	30.000	0.418	0.000
NFP4	3.700	4.000	2.000	5.000	0.690	0.056	-0.141	30.000	0.515	0.000
NFP5	3.800	4.000	2.000	5.000	0.748	-0.231	-0.141	30.000	0.418	0.000
NFP6	4.000	4.000	3.000	5.000	0.683	-0.789	0.000	30.000	0.471	0.000
RA	4.033	4.000	2.750	5.000	0.569	0.189	-0.298	30.000	0.069	0.275
TA1	3.933	4.000	2.000	5.000	0.814	-0.590	-0.262	30.000	0.327	0.000
TA2	4.067	4.000	2.000	5.000	0.680	1.753	-0.758	30.000	0.681	0.000
TA3	4.167	4.000	3.000	5.000	0.734	-1.095	-0.286	30.000	0.392	0.000
TA4	4.167	4.000	3.000	5.000	0.820	-1.487	-0.333	30.000	0.393	0.000
TS	3.828	4.000	1.670	5.000	0.865	0.317	-0.764	30.000	0.090	0.146

Indicator data (standardized)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	1.572	2.146	1.846	1.721	1.723	1.592	1.341	1.861	1.824	2.155	2.141	1.742	1.863	1.764	1.883	1.604	1.464	1.699	1.311	1.373	1.135	1.016	1.354
1	-0.226	-0.036	0.178	1.291	-0.387	-0.579	-0.834	-0.620	0.267	0.528	1.168	-1.008	0.392	-0.950	0.435	-1.069	1.464	0.820	1.311	-0.098	-0.227	-0.203	0.395
2	1.572	-0.400	0.512	1.721	0.668	0.507	0.254	0.620	0.537	1.018	0.681	0.367	0.392	0.407	0.435	0.267	0.000	-0.059	1.311	-0.098	-0.227	-0.203	0.198
3	0.542	0.691	-1.157	-1.721	-0.387	0.507	-0.834	1.861	0.807	0.038	-0.779	1.742	-1.079	0.407	0.435	0.267	0.000	1.259	0.082	-0.098	1.135	1.016	1.158
4	-1.502	-1.491	-0.823	-1.721	0.668	-0.579	0.254	-0.620	-0.750	-2.040	-0.292	0.367	0.392	-0.950	-1.014	-1.069	0.000	-2.255	-2.376	-3.040	-1.589	-1.423	-0.958
5	0.035	0.327	0.512	0.000	-0.387	0.507	0.254	0.620	1.078	-0.335	0.925	-1.008	0.392	0.407	0.435	0.267	0.000	-0.937	0.082	-0.098	-0.227	-0.203	-0.183
6	-1.502	-1.491	-3.159	-1.721	-2.496	-1.664	-1.921	-1.861	-3.105	-1.021	-2.725	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-0.059	0.082	-0.098	1.135	1.016	-2.495
7	-0.995	1.055	1.846	0.430	-2.496	-2.750	1.341	-0.620	-1.020	-0.766	0.195	0.367	0.392	0.407	-1.014	0.267	0.000	-0.498	-1.147	-0.098	-1.589	-1.423	-1.917
8	-0.734	0.327	0.178	0.000	0.668	0.507	-1.921	-1.861	-0.480	-0.609	-0.049	1.742	0.392	-2.306	-2.462	1.604	0.000	-0.498	-1.147	-0.098	1.135	-1.423	0.002
9	0.542	1.055	1.179	-0.430	-1.441	-1.664	-0.834	0.620	-0.969	0.803	-0.535	1.742	1.863	1.764	0.435	1.604	1.464	0.381	1.311	1.373	1.135	-1.423	-0.576
10	0.296	1.055	0.845	0.000	1.723	1.592	1.341	0.620	1.026	0.626	0.925	1.742	1.863	1.764	1.883	1.604	1.464	-0.059	0.082	-0.098	1.135	-0.203	0.776
11	0.035	0.691	0.178	0.000	-0.387	-0.579	0.254	-0.620	0.704	-0.256	0.438	0.367	0.392	-0.950	0.435	0.267	0.000	-0.937	0.082	-0.098	-0.227	1.016	0.776
12	0.035	-0.036	0.512	0.000	-0.387	0.507	-0.834	0.620	0.537	-0.021	0.681	-1.008	-1.079	0.407	1.883	0.267	0.000	0.381	-1.147	-0.098	1.135	1.016	0.198
13	-0.472	0.327	-0.156	0.000	-0.387	0.507	-0.834	-0.620	-0.055	0.018	0.438	0.367	0.392	-0.950	-1.014	-1.069	-1.464	0.381	1.311	1.373	-0.227	1.016	0.395
14	-0.995	-0.036	-0.489	-0.430	-0.387	0.507	0.254	0.620	-0.428	-0.825	-0.535	0.367	0.392	0.407	-1.014	0.267	0.000	-0.937	-1.147	-0.098	-0.227	-0.203	0.198
15	-1.241	-1.491	-0.823	-1.721	1.723	1.592	1.341	1.861	-0.106	-1.021	0.195	0.367	0.392	0.407	0.435	0.267	-1.464	-0.059	0.082	-0.098	-1.589	-0.203	-0.958
16	0.035	0.327	0.512	0.430	0.668	0.507	0.254	0.620	0.537	0.156	0.195	0.367	0.392	0.407	0.435	0.267	1.464	0.381	0.082	-0.098	-0.227	1.016	0.198
17	-0.226	-0.400	-0.156	0.000	0.668	-0.579	0.254	0.620	0.486	0.116	-0.292	-1.008	-1.079	0.407	0.435	-1.069	0.000	0.381	-1.147	-0.098	-0.227	-1.423	0.002
18	0.035	1.055	0.512	1.721	-0.387	-0.579	0.254	-0.620	0.910	-0.119	1.168	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	0.381	0.082	-1.569	-1.589	1.016	0.395
19	0.035	0.327	0.512	0.000	0.668	1.592	1.341	-0.620	0.537	0.116	0.925	0.367	0.392	0.407	0.435	0.267	1.464	-0.059	0.082	-0.098	-0.227	-0.203	0.198
20	1.572	1.419	1.179	0.861	-0.387	-0.579	1.341	0.620	0.537	1.705	0.925	-1.008	1.863	1.764	0.435	1.604	1.464	1.699	1.311	1.373	1.135	1.016	1.354
21	-1.502	-1.491	-0.156	-0.430	-0.387	-0.579	-0.834	-0.620	-1.715	-1.511	-1.508	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-1.376	-1.147	-1.569	-0.227	-0.203	-0.958
22	0.542	1.055	0.845	0.430	-0.387	0.507	-1.921	-1.861	1.502	0.783	-1.022	-1.008	-1.079	0.407	0.435	0.267	0.000	0.820	0.082	1.373	1.135	1.016	1.354
23	1.572	-0.400	-0.489	1.721	0.668	-0.579	1.341	-0.620	-0.106	1.979	-0.292	0.367	0.392	0.407	0.435	0.267	0.000	1.259	1.311	1.373	1.135	1.016	1.354
24	-0.472	-0.400	-0.489	-1.291	-0.387	-0.579	-0.834	-0.620	-0.261	-0.805	-0.292	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-0.498	0.082	-1.569	-0.227	-1.423	-0.380
25	-1.241	-1.491	-1.490	-0.430	-0.387	-0.579	0.254	-0.620	-0.904	-0.962	-1.508	-1.008	-1.079	-0.950	-1.014	-2.405	0.000	-0.059	-1.147	-0.098	-1.589	-1.423	-0.380
26	1.572	-1.128	-0.489	0.430	0.668	0.507	0.254	0.620	-0.209	1.352	-0.292	-1.008	-1.079	0.407	0.435	0.267	0.000	1.699	1.311	1.373	1.135	1.016	0.973
27	-0.995	-1.491	-0.823	-0.861	-0.387	-0.579	-0.834	-0.620	-0.698	-1.315	-0.292	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-2.255	-1.147	-0.098	-1.589	-0.203	-0.761
28	0.542	0.691	0.178	0.000	0.668	0.507	0.254	0.620	0.589	0.116	0.925	0.367	-1.079	0.407	0.435	0.267	0.000	-0.498	0.082	-0.098	-0.227	1.016	0.395
29	1.572	-0.764	-0.823	0.000	0.668	0.507	0.254	0.620	-1.072	0.097	-1.508	0.367	0.392	-0.950	0.435	0.267	0.000	-0.498	0.082	-0.098	-0.227	-1.423	-2.113

Indicator data (correlations)

Empirical correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.482	0.412	0.632	0.357	0.308	0.317	0.413	0.532	0.902	0.370	0.211	0.326	0.530	0.628	0.561	0.487	0.655	0.711	0.581	0.543	0.371	0.570
CPP	0.482	1.000	0.779	0.501	0.012	0.137	0.207	0.203	0.661	0.580	0.618	0.430	0.496	0.525	0.385	0.642	0.550	0.461	0.390	0.407	0.388	0.303	0.547
CS	0.412	0.779	1.000	0.617	0.151	0.115	0.366	0.221	0.617	0.487	0.723	0.271	0.535	0.531	0.390	0.592	0.554	0.250	0.245	0.279	0.131	0.036	0.419
CX	0.632	0.501	0.617	1.000	0.197	0.078	0.328	0.018	0.490	0.723	0.562	-0.020	0.295	0.253	0.312	0.268	0.399	0.485	0.511	0.401	0.176	0.297	0.503
FP1	0.357	0.012	0.151	0.197	1.000	0.806	0.442	0.458	0.519	0.302	0.426	0.335	0.255	0.205	0.423	0.291	0.257	0.132	0.118	0.014	0.056	0.050	0.422
FP2	0.308	0.137	0.115	0.078	0.806	1.000	0.226	0.449	0.580	0.264	0.394	0.312	0.174	0.236	0.461	0.348	0.212	0.189	0.181	0.156	0.214	0.279	0.449
FP3	0.317	0.207	0.366	0.328	0.442	0.226	1.000	0.517	0.324	0.317	0.497	0.206	0.487	0.536	0.415	0.271	0.371	0.158	0.157	0.078	-0.239	0.007	0.180
FP4	0.413	0.203	0.221	0.018	0.458	0.449	0.517	1.000	0.404	0.331	0.372	0.341	0.304	0.645	0.629	0.387	0.303	0.309	0.254	0.182	0.084	0.126	0.234
FR	0.532	0.661	0.617	0.490	0.519	0.580	0.324	0.404	1.000	0.548	0.758	0.174	0.220	0.455	0.597	0.386	0.429	0.404	0.309	0.250	0.179	0.384	0.798
FS	0.902	0.580	0.487	0.723	0.302	0.264	0.317	0.331	0.548	1.000	0.440	0.212	0.423	0.628	0.643	0.568	0.579	0.828	0.800	0.751	0.636	0.449	0.679
GS	0.370	0.618	0.723	0.562	0.426	0.394	0.497	0.372	0.758	0.440	1.000	0.219	0.460	0.383	0.444	0.403	0.427	0.239	0.333	0.126	-0.022	0.247	0.543
NFP1	0.211	0.430	0.271	-0.020	0.335	0.312	0.206	0.341	0.174	0.212	0.219	1.000	0.598	0.286	0.173	0.637	0.403	0.082	0.139	0.171	0.271	-0.093	0.147
NFP2	0.326	0.496	0.535	0.295	0.255	0.174	0.487	0.304	0.220	0.423	0.460	0.598	1.000	0.506	0.327	0.681	0.646	0.174	0.390	0.327	0.223	-0.100	0.167
NFP3	0.530	0.525	0.531	0.253	0.205	0.236	0.536	0.645	0.455	0.628	0.383	0.286	0.506	1.000	0.740	0.616	0.596	0.501	0.411	0.506	0.400	0.248	0.406
NFP4	0.628	0.385	0.390	0.312	0.423	0.461	0.415	0.629	0.597	0.643	0.444	0.173	0.327	0.740	1.000	0.465	0.565	0.492	0.439	0.398	0.427	0.383	0.443
NFP5	0.561	0.642	0.592	0.268	0.291	0.348	0.271	0.387	0.386	0.568	0.403	0.637	0.681	0.616	0.465	1.000	0.587	0.348	0.361	0.485	0.607	0.163	0.358
NFP6	0.487	0.550	0.554	0.399	0.257	0.212	0.371	0.303	0.429	0.579	0.427	0.403	0.646	0.596	0.565	0.587	1.000	0.407	0.300	0.359	0.399	0.000	0.413
RA	0.655	0.461	0.250	0.485	0.132	0.189	0.158	0.309	0.404	0.828	0.239	0.082	0.174	0.501	0.492	0.348	0.407	1.000	0.707	0.683	0.605	0.488	0.590
TA1	0.711	0.390	0.245	0.511	0.118	0.181	0.157	0.254	0.309	0.800	0.333	0.139	0.390	0.411	0.439	0.361	0.300	0.707	1.000	0.671	0.465	0.466	0.450
TA2	0.581	0.407	0.279	0.401	0.014	0.156	0.078	0.182	0.250	0.751	0.126	0.171	0.327	0.506	0.398	0.485	0.359	0.683	0.671	1.000	0.579	0.399	0.445
TA3	0.543	0.388	0.131	0.176	0.056	0.214	-0.239	0.084	0.179	0.636	-0.022	0.271	0.223	0.400	0.427	0.607	0.399	0.605	0.465	0.579	1.000	0.397	0.456
TA4	0.371	0.303	0.036	0.297	0.050	0.279	0.007	0.126	0.384	0.449	0.247	-0.093	-0.100	0.248	0.383	0.163	0.000	0.488	0.466	0.399	0.397	1.000	0.558
TS	0.570	0.547	0.419	0.503	0.422	0.449	0.180	0.234	0.798	0.679	0.543	0.147	0.167	0.406	0.443	0.358	0.413	0.590	0.450	0.445	0.456	0.558	1.000

Model implied saturated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.629	0.546	0.652	0.291	0.314	0.161	0.279	0.642	0.808	0.532	0.332	0.441	0.506	0.456	0.499	0.474	0.683	0.551	0.561	0.504	0.428	0.686
CPP	0.629	1.000	0.471	0.562	0.251	0.271	0.139	0.240	0.553	0.696	0.458	0.286	0.380	0.436	0.393	0.430	0.409	0.589	0.475	0.484	0.434	0.369	0.591

CS	0.546	0.471	1.000	0.488	0.218	0.235	0.120	0.209	0.480	0.604	0.398	0.248	0.330	0.379	0.341	0.373	0.355	0.511	0.412	0.420	0.377	0.320	0.513
CX	0.652	0.562	0.488	1.000	0.260	0.280	0.144	0.249	0.573	0.722	0.475	0.296	0.394	0.452	0.407	0.446	0.424	0.610	0.492	0.501	0.450	0.383	0.613
FP1	0.291	0.251	0.218	0.260	1.000	0.738	0.379	0.656	0.256	0.322	0.212	0.258	0.343	0.393	0.354	0.387	0.368	0.272	0.173	0.176	0.158	0.134	0.274
FP2	0.314	0.271	0.235	0.280	0.738	1.000	0.408	0.707	0.276	0.347	0.228	0.278	0.369	0.424	0.382	0.417	0.397	0.293	0.186	0.190	0.170	0.145	0.295
FP3	0.161	0.139	0.120	0.144	0.379	0.408	1.000	0.363	0.141	0.178	0.117	0.142	0.189	0.217	0.196	0.214	0.204	0.151	0.096	0.097	0.087	0.074	0.151
FP4	0.279	0.240	0.209	0.249	0.656	0.707	0.363	1.000	0.245	0.309	0.203	0.247	0.328	0.376	0.339	0.371	0.353	0.261	0.166	0.169	0.151	0.129	0.262
FR	0.642	0.553	0.480	0.573	0.256	0.276	0.141	0.245	1.000	0.710	0.467	0.292	0.388	0.445	0.401	0.438	0.417	0.600	0.484	0.493	0.443	0.376	0.603
FS	0.808	0.696	0.604	0.722	0.322	0.347	0.178	0.309	0.710	1.000	0.588	0.367	0.488	0.560	0.504	0.552	0.525	0.755	0.610	0.621	0.557	0.474	0.759
GS	0.532	0.458	0.398	0.475	0.212	0.228	0.117	0.203	0.467	0.588	1.000	0.241	0.321	0.368	0.332	0.363	0.345	0.497	0.401	0.408	0.367	0.312	0.499
NFP1	0.332	0.286	0.248	0.296	0.258	0.278	0.142	0.247	0.292	0.367	0.241	1.000	0.423	0.485	0.437	0.477	0.454	0.310	0.265	0.270	0.243	0.206	0.312
NFP2	0.441	0.380	0.330	0.394	0.343	0.369	0.189	0.328	0.388	0.488	0.321	0.423	1.000	0.645	0.581	0.635	0.604	0.413	0.353	0.359	0.323	0.274	0.415
NFP3	0.506	0.436	0.379	0.452	0.393	0.424	0.217	0.376	0.445	0.560	0.368	0.485	0.645	1.000	0.666	0.728	0.693	0.473	0.405	0.412	0.370	0.315	0.476
NFP4	0.456	0.393	0.341	0.407	0.354	0.382	0.196	0.339	0.401	0.504	0.332	0.437	0.581	0.666	1.000	0.656	0.624	0.426	0.365	0.371	0.333	0.283	0.428
NFP5	0.499	0.430	0.373	0.446	0.387	0.417	0.214	0.371	0.438	0.552	0.363	0.477	0.635	0.728	0.656	1.000	0.682	0.466	0.399	0.406	0.365	0.310	0.469
NFP6	0.474	0.409	0.355	0.424	0.368	0.397	0.204	0.353	0.417	0.525	0.345	0.454	0.604	0.693	0.624	0.682	1.000	0.443	0.379	0.386	0.347	0.295	0.446
RA	0.683	0.589	0.511	0.610	0.272	0.293	0.151	0.261	0.600	0.755	0.497	0.310	0.413	0.473	0.426	0.466	0.443	1.000	0.515	0.525	0.471	0.400	0.641
TA1	0.551	0.475	0.412	0.492	0.173	0.186	0.096	0.166	0.484	0.610	0.401	0.265	0.353	0.405	0.365	0.399	0.379	0.515	1.000	0.731	0.657	0.558	0.518
TA2	0.561	0.484	0.420	0.501	0.176	0.190	0.097	0.169	0.493	0.621	0.408	0.270	0.359	0.412	0.371	0.406	0.386	0.525	0.731	1.000	0.668	0.568	0.527
TA3	0.504	0.434	0.377	0.450	0.158	0.170	0.087	0.151	0.443	0.557	0.367	0.243	0.323	0.370	0.333	0.365	0.347	0.471	0.657	0.668	1.000	0.510	0.473
TA4	0.428	0.369	0.320	0.383	0.134	0.145	0.074	0.129	0.376	0.474	0.312	0.206	0.274	0.315	0.283	0.310	0.295	0.400	0.558	0.568	0.510	1.000	0.402
TS	0.686	0.591	0.513	0.613	0.274	0.295	0.151	0.262	0.603	0.759	0.499	0.312	0.415	0.476	0.428	0.469	0.446	0.641	0.518	0.527	0.473	0.402	1.000

Model implied estimated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.629	0.546	0.652	0.133	0.143	0.073	0.127	0.642	0.808	0.532	0.204	0.271	0.311	0.280	0.306	0.291	0.683	0.551	0.561	0.504	0.428	0.686
CPP	0.629	1.000	0.471	0.562	0.114	0.123	0.063	0.110	0.553	0.696	0.458	0.176	0.234	0.268	0.241	0.264	0.251	0.589	0.475	0.484	0.434	0.369	0.591
CS	0.546	0.471	1.000	0.488	0.099	0.107	0.055	0.095	0.480	0.604	0.398	0.152	0.203	0.232	0.209	0.229	0.218	0.511	0.412	0.420	0.377	0.320	0.513
CX	0.652	0.562	0.488	1.000	0.119	0.128	0.066	0.113	0.573	0.722	0.475	0.182	0.242	0.278	0.250	0.274	0.260	0.610	0.492	0.501	0.450	0.383	0.613
FP1	0.133	0.114	0.099	0.119	1.000	0.738	0.379	0.656	0.117	0.147	0.097	0.064	0.085	0.097	0.088	0.096	0.091	0.124	0.173	0.176	0.158	0.134	0.125
FP2	0.143	0.123	0.107	0.128	0.738	1.000	0.408	0.707	0.126	0.158	0.104	0.069	0.092	0.105	0.095	0.103	0.098	0.134	0.186	0.190	0.170	0.145	0.134
FP3	0.073	0.063	0.055	0.066	0.379	0.408	1.000	0.363	0.064	0.081	0.053	0.035	0.047	0.054	0.049	0.053	0.050	0.069	0.096	0.097	0.087	0.074	0.069
FP4	0.127	0.110	0.095	0.113	0.656	0.707	0.363	1.000	0.112	0.141	0.092	0.061	0.081	0.093	0.084	0.092	0.087	0.119	0.166	0.169	0.151	0.129	0.119
FR	0.642	0.553	0.480	0.573	0.117	0.126	0.064	0.112	1.000	0.710	0.467	0.179	0.238	0.273	0.246	0.269	0.256	0.600	0.484	0.493	0.443	0.376	0.603
FS	0.808	0.696	0.604	0.722	0.147	0.158	0.081	0.141	0.710	1.000	0.588	0.225	0.300	0.344	0.310	0.339	0.322	0.755	0.610	0.621	0.557	0.474	0.759
GS	0.532	0.458	0.398	0.475	0.097	0.104	0.053	0.092	0.467	0.588	1.000	0.148	0.197	0.226	0.204	0.223	0.212	0.497	0.401	0.408	0.367	0.312	0.499
NFP1	0.204	0.176	0.152	0.182	0.064	0.069	0.035	0.061	0.179	0.225	0.148	1.000	0.423	0.485	0.437	0.477	0.454	0.190	0.265	0.270	0.243	0.206	0.191
NFP2	0.271	0.234	0.203	0.242	0.085	0.092	0.047	0.081	0.238	0.300	0.197	0.423	1.000	0.645	0.581	0.635	0.604	0.253	0.353	0.359	0.323	0.274	0.255
NFP3	0.311	0.268	0.232	0.278	0.097	0.105	0.054	0.093	0.273	0.344	0.226	0.485	0.645	1.000	0.666	0.728	0.693	0.290	0.405	0.412	0.370	0.315	0.292
NFP4	0.280	0.241	0.209	0.250	0.088	0.095	0.049	0.084	0.246	0.310	0.204	0.437	0.581	0.666	1.000	0.656	0.624	0.262	0.365	0.371	0.333	0.283	0.263
NFP5	0.306	0.264	0.229	0.274	0.096	0.103	0.053	0.092	0.269	0.339	0.223	0.477	0.635	0.728	0.656	1.000	0.682	0.286	0.399	0.406	0.365	0.310	0.288
NFP6	0.291	0.251	0.218	0.260	0.091	0.098	0.050	0.087	0.256	0.322	0.212	0.454	0.604	0.693	0.624	0.682	1.000	0.272	0.379	0.386	0.347	0.295	0.273
RA	0.683	0.589	0.511	0.610	0.124	0.134	0.069	0.119	0.600	0.755	0.497	0.190	0.253	0.290	0.262	0.286	0.272	1.000	0.515	0.525	0.471	0.400	0.641
TA1	0.551	0.475	0.412	0.492	0.173	0.186	0.096	0.166	0.484	0.610	0.401	0.265	0.353	0.405	0.365	0.399	0.379	0.515	1.000	0.731	0.657	0.558	0.518
TA2	0.561	0.484	0.420	0.501	0.176	0.190	0.097	0.169	0.493	0.621	0.408	0.270	0.359	0.412	0.371	0.406	0.386	0.525	0.731	1.000	0.668	0.568	0.527
TA3	0.504	0.434	0.377	0.450	0.158	0.170	0.087	0.151	0.443	0.557	0.367	0.243	0.323	0.370	0.333	0.365	0.347	0.471	0.657	0.668	1.000	0.510	0.473
TA4	0.428	0.369	0.320	0.383	0.134	0.145	0.074	0.129	0.376	0.474	0.312	0.206	0.274	0.315	0.283	0.310	0.295	0.400	0.558	0.568	0.510	1.000	0.402
TS	0.686	0.591	0.513	0.613	0.125	0.134	0.069	0.119	0.603	0.759	0.499	0.191	0.255	0.292	0.263	0.288	0.273	0.641	0.518	0.527	0.473	0.402	1.000

Empirical covariance matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.482	0.412	0.632	0.357	0.308	0.317	0.413	0.532	0.902	0.370	0.211	0.326	0.530	0.628	0.561	0.487	0.655	0.711	0.581	0.543	0.371	0.570
CPP	0.482	1.000	0.779	0.501	0.012	0.137	0.207	0.203	0.661	0.580	0.618	0.430	0.496	0.525	0.385	0.642	0.550	0.461	0.390	0.407	0.388	0.303	0.547
CS	0.412	0.779	1.000	0.617	0.151	0.115	0.366	0.221	0.617	0.487	0.723	0.271	0.535	0.531	0.390	0.592	0.554	0.250	0.245	0.279	0.131	0.036	0.419
CX	0.632	0.501	0.617	1.000	0.197	0.078	0.328	0.018	0.490	0.723	0.562	-0.020	0.295	0.253	0.312	0.268	0.399	0.485	0.511	0.401	0.176	0.297	0.503
FP1	0.357	0.012	0.151	0.197	1.000	0.806	0.442	0.458	0.519	0.302	0.426	0.335	0.255	0.205	0.423	0.291	0.257	0.132	0.118	0.014	0.056	0.050	0.422
FP2	0.308	0.137	0.115	0.078	0.806	1.000	0.226	0.449	0.580	0.264	0.394	0.312	0.174	0.236	0.461	0.348	0.212	0.189	0.181	0.156	0.214	0.279	0.449
FP3	0.317	0.207	0.366	0.328	0.442	0.226	1.000	0.517	0.324	0.317	0.497	0.206	0.487	0.536	0.415	0.271	0.371	0.158	0.157	0.078	-0.239	0.007	0.180
FP4	0.413	0.203	0.221	0.018	0.458	0.449	0.517	1.000	0.404	0.331	0.372	0.341	0.304	0.645	0.629	0.387	0.303	0.309	0.254	0.182	0.084	0.126	0.234
FR	0.532	0.661	0.617	0.490	0.519	0.580	0.324	0.404	1.000	0.548	0.758	0.174	0.220	0.455	0.597	0.386	0.429	0.404	0.309	0.250	0.179	0.384	0.798
FS	0.902	0.580	0.487	0.723	0.302	0.264	0.317	0.331	0.548	1.000	0.440	0.212	0.423	0.628	0.643	0.568	0.579	0.828	0.800	0.751	0.636	0.449	0.679
GS	0.370	0.618	0.723	0.562	0.426	0.394	0.497	0.372	0.758	0.440	1.000	0.219	0.460	0.383	0.444	0.403	0.427	0.239	0.333	0.126	-0.022	0.247	0.543
NFP1	0.211	0.430	0.271	-0.020	0.335	0.312	0.206	0.341	0.174	0.212	0.219	1.000	0.598	0.286	0.173	0.637	0.403	0.082	0.139	0.171	0.271	-0.093	0.147
NFP2	0.326	0.496	0.535	0.295	0.255	0.174	0.487	0.304	0.220	0.423	0.460	0.598	1.000	0.506	0.327	0.681	0.646	0.174	0.390	0.327	0.223	-0.100	0.167
NFP3	0.530	0.525	0.531	0.253	0.205	0.236	0.536	0.645	0.455	0.628	0.383	0.286	0.506	1.000	0.740	0.616	0.596	0.501	0.411	0.506	0.400	0.248	0.406
NFP4	0.628	0.385	0.390	0.312	0.423	0.461	0.415	0.629	0.597	0.643	0.444	0.173	0.327	0.740	1.000	0.465	0.565	0.492	0.439	0.398	0.427	0.383	0.443
NFP5	0.561	0.642	0.592	0.268	0.291	0.348	0.271	0.387	0.386	0.568	0.403	0.637	0.681	0.616	0.465	1.000	0.587	0.348	0.361	0.485	0.607	0.163	0.358
NFP6	0.487	0.550	0.554	0.399	0.257	0.212	0.371	0.303	0.429	0.579	0.427	0.403	0.646	0.596	0.565	0.587	1.000	0.407	0.300	0.359	0.399	0.000	0.413
RA	0.655	0.461	0.250	0.485	0.132	0.189	0.158	0.309	0.404	0.828	0.239	0.082	0.174	0.501	0.492	0.348	0.407	1.000	0.707	0.683	0.605	0.488	0.590
TA1	0.711	0.390	0.245	0.511	0.118	0.181	0.157	0.254	0.309	0.800	0.333	0.139	0.390	0.411	0.439	0.361	0.300	0.707	1.000	0.671	0.465	0.466	0.450
TA2	0.581	0.407	0.279	0.401	0.014	0.156	0.078	0.182	0.250	0.751	0.126	0.171	0.327	0.506	0.398	0.485	0.359	0.683	0.671	1.000	0.579	0.399	0.445
TA3	0.543	0.388	0.131	0.176	0.056	0.214	-0.239	0.084	0.179	0.636	-0.022	0.271	0.223	0.400	0.427	0.607	0.399	0.605	0.465	0.579	1.000	0.397	0.456
TA4	0.371	0.303	0.036	0.297	0.050	0.279	0.007	0.126	0.384	0.449	0.247	-0.093	-0.100	0.248	0.383	0.163	0.000	0.488	0.466	0.399	0.397	1.000	0.558
TS	0.570	0.547	0.419	0.503	0.422	0.449	0.180	0.234	0.798	0.679	0.543	0.147	0.167	0.406	0.443	0.358	0.413	0.590	0.450	0.445	0.456	0.558	1.000

iii. Factor Analysis for First-Order Model on Formative Measurement

SmartPLS report

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Final results

Construct reliability and validity

Overview

	Cronbach's alpha	ability (rho_a)	ability (rho_c)	xtracted (AVE)
E	0.878	0.881	0.925	0.805
FP	0.789	0.872	0.842	0.582
NFP	0.867	0.904	0.897	0.597
O	0.862	0.869	0.916	0.785
T	0.812	0.817	0.889	0.728
TA	0.797	0.821	0.868	0.625

Discriminant validity

Fornell-Larcker criterion

	E	FP	NFP	O	T	TA
E	0.897					
FP	0.312	0.763				
NFP	0.663	0.556	0.773			
O	0.703	0.520	0.621	0.886		
T	0.561	0.317	0.577	0.807	0.853	
TA	0.345	0.247	0.550	0.665	0.771	0.790

Collinearity statistics (VIF)

Inner model - Matrix

	CP	CPP	CS	CX	E	FP	FR	FS	GS	NFP	O	RA	T	TA	TS
CP													2.916		
CPP					3.075										
CS					4.114										
CX													2.174		
E														1.978	
FP															
FR											1.979				
FS											1.353				
GS					2.933										
NFP															
O														3.883	
RA													2.269		
T														2.866	
TA						1.000				1.000					
TS											2.407				

Inner model - List

	VIF
CP -> T	2.916
CPP -> E	3.075
CS -> E	4.114
CX -> T	2.174
E -> TA	1.978
FR -> O	1.979
FS -> O	1.353
GS -> E	2.933
O -> TA	3.883
RA -> T	2.269
T -> TA	2.866
TA -> FP	1.000
TA -> NFP	1.000
TS -> O	2.407

Algorithm

Setting

Data file

	Setting
Data file	m Pilot 30SME - To run test
Weighting vector	-

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^{-7}
Type of results	Standardized
Use Lohmoeller settings?	No
Weighting scheme	Factor

Construct outer weighting mode

	Setting
CP	AUTOMATIC
CPP	AUTOMATIC
CS	AUTOMATIC
CX	AUTOMATIC
E	AUTOMATIC
FP	AUTOMATIC
FR	AUTOMATIC
FS	AUTOMATIC
GS	AUTOMATIC
NFP	AUTOMATIC
O	AUTOMATIC
RA	AUTOMATIC
T	AUTOMATIC
TA	AUTOMATIC
TS	AUTOMATIC

Stop criterion changes

Matrix

	CP	CP1	CP2	CP3	CP4	CP5	CP6	CPP	CPP1	CPP2	CPP3	CPP4	CPP5	CS	CS1	CS2	CS3
Iteration 0	0.391	0.190	0.190	0.190	0.190	0.190	0.190	0.372	0.276	0.276	0.276	0.276	0.276	0.372	0.291	0.291	0.291
Iteration 1	0.415	0.504	-0.142	0.218	-0.004	0.297	0.261	0.379	0.097	0.176	0.274	0.480	0.280	0.381	0.159	0.229	0.305
Iteration 2	0.413	0.487	-0.113	0.215	0.008	0.285	0.255	0.371	0.099	0.179	0.273	0.474	0.283	0.386	0.167	0.232	0.305
Iteration 3	0.413	0.490	-0.121	0.216	0.005	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.165	0.232	0.305
Iteration 4	0.413	0.490	-0.120	0.216	0.006	0.288	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305
Iteration 5	0.413	0.490	-0.121	0.216	0.006	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305
Iteration 6	0.413	0.490	-0.121	0.216	0.006	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305
Iteration 7	0.413	0.490	-0.121	0.216	0.006	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305
Iteration 8	0.413	0.490	-0.121	0.216	0.006	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305
Iteration 9	0.413	0.490	-0.121	0.216	0.006	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305
Iteration 10	0.413	0.490	-0.121	0.216	0.006	0.289	0.257	0.372	0.096	0.178	0.273	0.476	0.283	0.386	0.166	0.233	0.305

	CS4	CX	CX1	CX2	CX3	CX4	FP1	FP2	FP3	FP4	FR	FR1	FR2	FR3	FS	FS1	FS2	FS3	GS	GS1	GS2	GS3	GS4	GS5
Iteration 0	0.291	0.391	0.312	0.312	0.312	0.312	0.320	0.320	0.320	0.320	0.377	0.388	0.388	0.388	0.377	0.363	0.363	0.363	0.372	0.220	0.220	0.220	0.220	0.220
Iteration 1	0.460	0.355	0.323	0.474	0.239	0.221	0.164	0.571	0.003	0.445	0.370	0.311	0.380	0.486	0.358	0.757	-0.528	0.790	0.355	0.252	0.656	0.045	0.230	-0.122
Iteration 2	0.451	0.366	0.329	0.483	0.231	0.214	0.166	0.539	0.041	0.458	0.375	0.317	0.368	0.492	0.351	0.771	-0.553	0.796	0.357	0.252	0.668	0.040	0.230	-0.131
Iteration 3	0.452	0.365	0.330	0.478	0.234	0.215	0.166	0.543	0.035	0.457	0.375	0.320	0.364	0.493	0.350	0.776	-0.562	0.800	0.356	0.252	0.666	0.036	0.232	-0.128
Iteration 4	0.452	0.366	0.330	0.479	0.233	0.215	0.166	0.542	0.036	0.457	0.375	0.320	0.364	0.493	0.349	0.776	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128
Iteration 5	0.452	0.366	0.330	0.478	0.234	0.215	0.166	0.542	0.036	0.457	0.376	0.320	0.364	0.493	0.349	0.777	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128
Iteration 6	0.452	0.366	0.330	0.478	0.234	0.215	0.166	0.542	0.036	0.457	0.376	0.320	0.364	0.493	0.349	0.777	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128
Iteration 7	0.452	0.366	0.330	0.478	0.234	0.215	0.166	0.542	0.036	0.457	0.376	0.320	0.364	0.493	0.349	0.777	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128
Iteration 8	0.452	0.366	0.330	0.478	0.234	0.215	0.166	0.542	0.036	0.457	0.376	0.320	0.364	0.493	0.349	0.777	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128
Iteration 9	0.452	0.366	0.330	0.478	0.234	0.215	0.166	0.542	0.036	0.457	0.376	0.320	0.364	0.493	0.349	0.777	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128
Iteration 10	0.452	0.366	0.330	0.478	0.234	0.215	0.166	0.542	0.036	0.457	0.376	0.320	0.364	0.493	0.349	0.777	-0.564	0.800	0.356	0.252	0.667	0.036	0.232	-0.128

	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	RA1	RA2	RA3	RA4	TA1	TA2	TA3	TA4	TS	TS1	TS2	TS3	TS4	TS5	TS6
Iteration 0	0.215	0.215	0.215	0.215	0.215	0.215	0.391	0.334	0.334	0.334	0.334	0.317	0.317	0.317	0.317	0.377	0.190	0.190	0.190	0.190	0.190	0.190
Iteration 1	0.085	0.146	0.272	0.287	0.281	0.184	0.401	0.366	0.024	0.399	0.548	0.378	0.344	0.289	0.241	0.400	0.151	0.050	0.391	0.166	0.182	0.199
Iteration 2	0.089	0.160	0.269	0.276	0.276	0.188	0.392	0.365	0.040	0.391	0.544	0.370	0.341	0.295	0.247	0.401	0.150	0.054	0.384	0.170	0.180	0.200
Iteration 3	0.089	0.158	0.269	0.277	0.277	0.187	0.392	0.365	0.032	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 4	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.033	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 5	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.032	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 6	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.033	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 7	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.032	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 8	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.032	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 9	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.032	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202
Iteration 10	0.089	0.159	0.269	0.277	0.277	0.187	0.392	0.365	0.032	0.393	0.547	0.371	0.341	0.294	0.247	0.402	0.148	0.054	0.385	0.171	0.179	0.202

Posthoc minimum sample size

List

	Path coefficients	%, power 80%	%, power 80%	%, power 90%	%, power 90%
CP -> T	0.424	56.000	35.000	73.000	48.000
CPP -> E	0.391	66.000	41.000	86.000	56.000
CS -> E	0.373	73.000	45.000	94.000	62.000
CX -> T	0.278	130.000	80.000	168.000	111.000
E -> TA	-0.235	183.000	113.000	237.000	156.000
FR -> O	0.264	145.000	89.000	188.000	124.000
FS -> O	0.079	1616.000	996.000	2096.000	1379.000
GS -> E	0.310	105.000	65.000	136.000	90.000
O -> TA	0.291	119.000	73.000	154.000	101.000
RA -> T	0.399	64.000	39.000	82.000	54.000
T -> TA	0.668	23.000	14.000	30.000	20.000
TA -> FP	0.247	165.000	102.000	213.000	140.000
TA -> NFP	0.550	34.000	21.000	43.000	29.000
TS -> O	0.721	20.000	12.000	26.000	17.000

Execution log

Reading score matrix of complete data set
Calculating full data set.
Running PLS-SEM iterations, at most 3000.
Calculating report matrices and charts.
All calculations done.

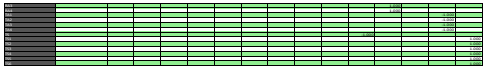
Model and data

Inner model

	CP	CPP	CS	CX	E	FP	FR	FS	GS	NFP	O	RA	T	TA	TS
CP													1.000		
CPP					1.000										
CS					1.000										
CX													1.000		
E														1.000	
FP															
FR											1.000				
FS											1.000				
GS					1.000										
NFP															
O														1.000	
RA													1.000		
T														1.000	
TA						1.000				1.000					
TS											1.000				

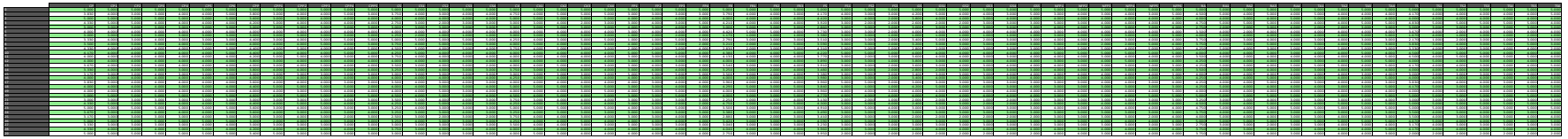
Outer model

	CP	CPP	CS	CX	E	FP	FR	FS	GS	NFP	O	RA	T	TA	TS
CP													-1.000		
CP1	1.000														
CP2	1.000														
CP3	1.000														
CP4	1.000														
CP5	1.000														
CP6	1.000														
CPP					-1.000										
CPP1		1.000													
CPP2		1.000													
CPP3		1.000													
CPP4		1.000													
CPP5		1.000													
CS					-1.000										
CS1			1.000												
CS2			1.000												
CS3			1.000												
CS4			1.000												
CX													-1.000		
CX1				1.000											
CX2				1.000											
CX3				1.000											
CX4				1.000											
FP1						-1.000									
FP2						-1.000									
FP3						-1.000									
FP4						-1.000									
FR											-1.000				
FR1							1.000								
FR2							1.000								
FR3							1.000								
FS											-1.000				
FS1								1.000							
FS2								1.000							
FS3								1.000							
GS					-1.000										
GS1									1.000						
GS2									1.000						
GS3									1.000						
GS4									1.000						
GS5									1.000						
NFP1										-1.000					
NFP2										-1.000					
NFP3										-1.000					
NFP4										-1.000					
NFP5										-1.000					
NFP6										-1.000					
RA													-1.000		
RA1												1.000			
RA2												1.000			

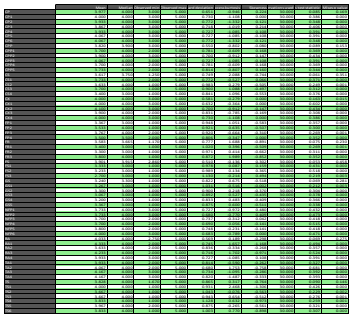


Indicator data (original)

Matrix

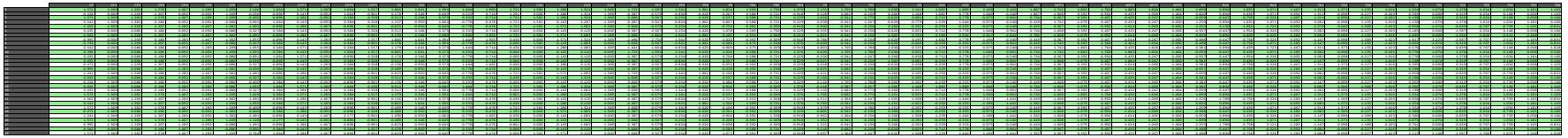


MV-imputation



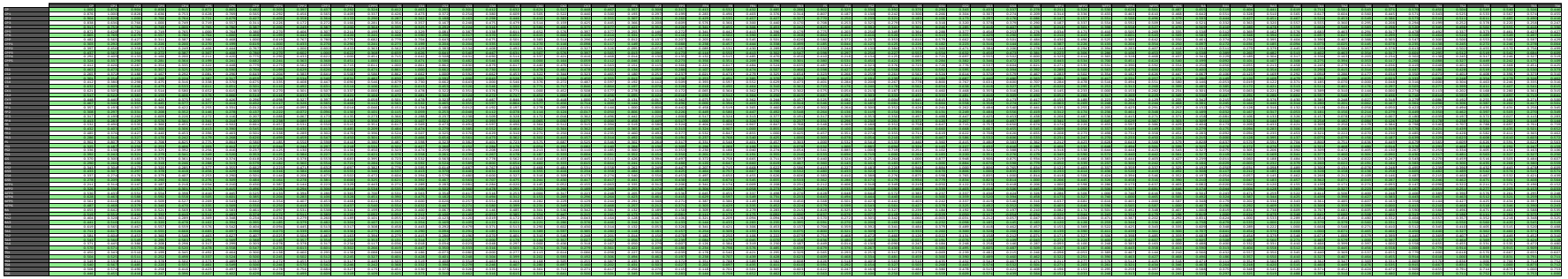
Indicator data (standardized)

Matrix

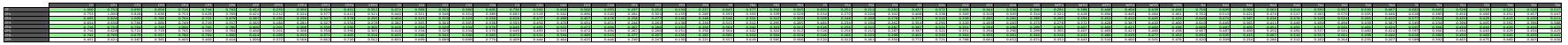


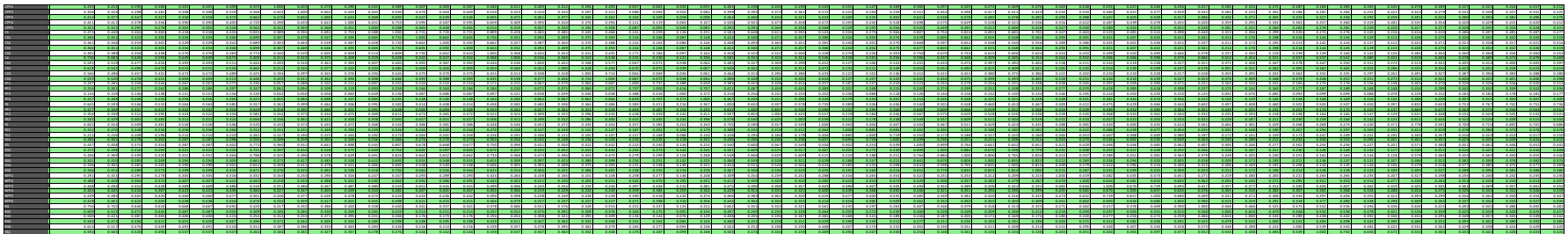
Indicator data (correlations)

Reversed correlation matrix

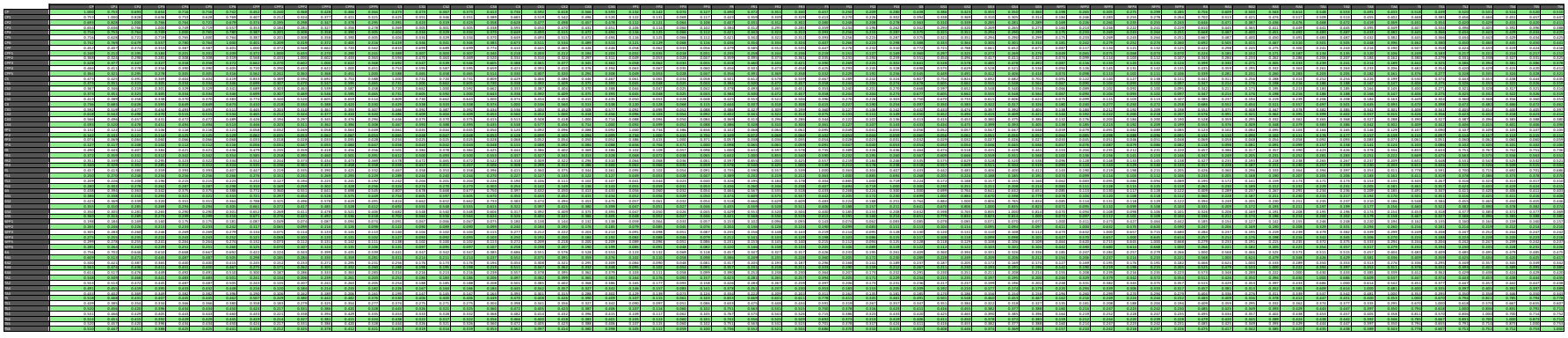


Model implied saturated correlation matrix

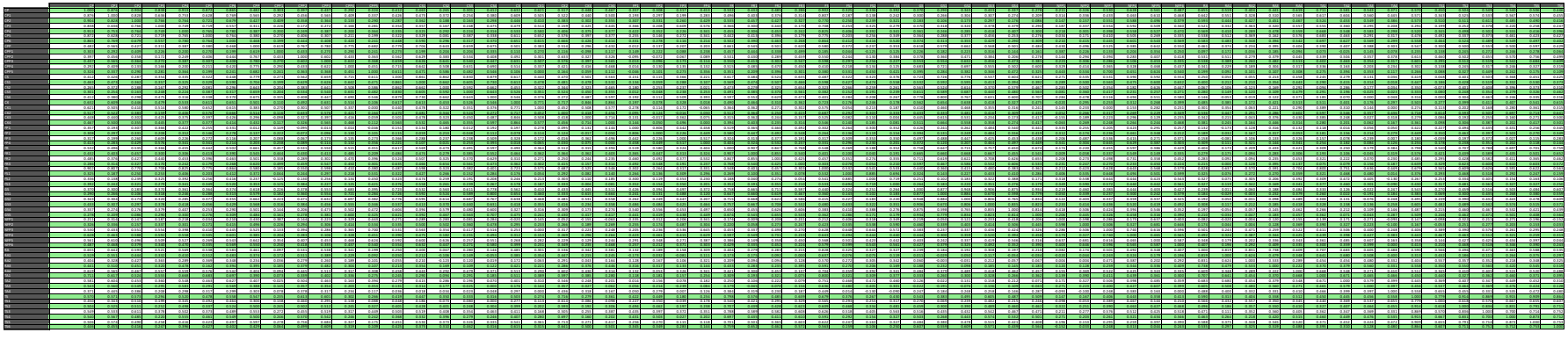




Model-implied estimated correlation matrix



Empirical covariance matrix



iv. Factor Analysis for Second-Order Model on Formative Measurement

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

back to navigation

Final results

Construct reliability and validity

Overview

	Cronbach's alpha	ability (rho_a)	ability (rho_c)	ctracted (AVE)
FP	0.789	0.848	0.837	0.575
NFP	0.867	0.903	0.898	0.598
TA	0.797	0.826	0.867	0.623

Discriminant validity

Fornell-Larcker criterion

	FP	NFP	TA
FP	0.759		
NFP	0.545	0.774	
TA	0.246	0.562	0.789

Collinearity statistics (VIF)

Inner model - Matrix

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Inner model - List

	VIF
TA -> FP	1.000
TA -> NFP	1.000
TOE -> TA	1.000

Algorithm

Setting

Data file

	Setting
Data file	m Pilot 30SME - To run test
Weighting vector	-

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^{-7}
Type of results	Standardized
Use Lohmoeller settings?	No
Weighting scheme	Factor

Construct outer weighting mode

	Setting
FP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TOE	AUTOMATIC

Stop criterion changes

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
Iteration 0	0.142	0.142	0.142	0.142	0.320	0.320	0.320	0.320	0.142	0.142	0.142	0.215	0.215	0.215	0.215	0.215	0.215	0.142	0.317	0.317	0.317	0.317	0.142
Iteration 1	-0.223	0.303	-0.314	-0.231	0.164	0.571	0.003	0.445	-0.263	1.253	0.016	0.085	0.146	0.272	0.287	0.281	0.184	-0.007	0.377	0.352	0.304	0.214	0.230
Iteration 2	-0.250	0.260	-0.255	-0.259	0.167	0.538	0.035	0.461	-0.259	1.364	0.011	0.092	0.162	0.267	0.272	0.276	0.189	-0.027	0.344	0.349	0.344	0.213	0.161
Iteration 3	-0.252	0.270	-0.243	-0.275	0.168	0.555	0.002	0.460	-0.265	1.369	-0.014	0.094	0.158	0.265	0.270	0.280	0.191	-0.035	0.348	0.353	0.343	0.203	0.181
Iteration 4	-0.256	0.266	-0.236	-0.278	0.168	0.553	0.004	0.462	-0.264	1.381	-0.016	0.095	0.160	0.265	0.269	0.280	0.191	-0.038	0.345	0.353	0.347	0.203	0.175
Iteration 5	-0.256	0.267	-0.235	-0.280	0.168	0.554	0.002	0.462	-0.265	1.382	-0.018	0.095	0.159	0.265	0.269	0.280	0.191	-0.039	0.346	0.354	0.347	0.202	0.176
Iteration 6	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.018	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 7	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.018	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176

Iteration 8	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 9	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 10	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 11	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 12	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 13	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 14	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176
Iteration 15	-0.257	0.267	-0.234	-0.280	0.168	0.554	0.002	0.462	-0.264	1.383	-0.019	0.095	0.159	0.264	0.269	0.280	0.191	-0.039	0.345	0.354	0.347	0.202	0.176

Posthoc minimum sample size

List

	Path coefficients	ŋ, power 80%	ŋ, power 80%	ŋ, power 90%	ŋ, power 90%
TA -> FP	0.246	167.000	103.000	216.000	142.000
TA -> NFP	0.562	32.000	20.000	42.000	28.000
TOE -> TA	0.924	12.000	8.000	16.000	11.000

Execution log

Reading score matrix of complete data set
Calculating full data set.
Running PLS-SEM iterations, at most 3000.
Calculating report matrices and charts.
All calculations done.

Model and data

Inner model

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Outer model

	FP	NFP	TA	TOE
CP				1.000
CPP				1.000
CS				1.000
CX				1.000
FP1	-1.000			
FP2	-1.000			
FP3	-1.000			
FP4	-1.000			
FR				1.000
FS				1.000
GS				1.000
NFP1		-1.000		
NFP2		-1.000		
NFP3		-1.000		
NFP4		-1.000		
NFP5		-1.000		
NFP6		-1.000		
RA				1.000
TA1			-1.000	
TA2			-1.000	
TA3			-1.000	
TA4			-1.000	
TS				1.000

Indicator data (original)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
1	3.830	3.800	3.750	4.750	3.000	3.000	3.000	3.000	3.790	4.170	4.200	3.000	4.000	3.000	4.000	3.000	5.000	4.500	5.000	4.000	4.000	4.000	4.170
2	5.000	3.600	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.420	3.800	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
3	4.330	4.200	2.750	3.000	3.000	4.000	3.000	5.000	4.210	3.920	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
4	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	2.860	3.000	4.000	4.000	3.000	3.000	3.000	4.000	2.750	2.000	2.000	3.000	3.000	3.000
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.420	3.730	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.670
6	3.000	3.000	1.250	3.000	1.000	2.000	2.000	2.000	1.170	3.380	1.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	5.000	5.000	1.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	2.790	3.510	3.400	4.000	4.000	4.000	3.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	2.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.210	3.590	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.830
9	4.330	4.400	4.500	3.750	2.000	2.000	3.000	4.000	2.830	4.310	2.800	5.000	5.000	5.000	4.000	5.000	5.000	4.250	5.000	5.000	5.000	3.000	3.330
10	4.170	4.400	4.250	4.000	5.000	5.000	5.000	4.000	4.380	4.220	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	4.000	4.000	5.000	4.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.130	3.770	3.600	4.000	4.000	3.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	5.000	4.500
12	4.000	3.800	4.000	4.000	3.000	4.000	3.000	4.000	4.000	3.890	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	3.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	3.000	3.000	3.540	3.910	3.600	4.000	4.000	3.000	3.000	3.000	3.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	4.000	4.000	4.000	3.250	3.480	2.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	4.000	4.000	4.000	4.000
15	3.170	3.000	3.000	3.000	5.000	5.000	5.000	5.000	3.500	3.380	3.400	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	3.000	4.000	3.000
16	4.000	4.000	4.000	4.250	4.000	4.000	4.000	4.000	4.000	3.980	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	3.960	3.960	3.000	3.000	3.000	4.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.290	3.840	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	4.000	5.000	5.000	3.000	4.000	3.960	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.000

20	5.000	4.600	4.500	4.500	3.000	3.000	5.000	4.000	4.000	4.770	4.000	3.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	3.000	3.500	3.750	3.000	3.000	3.000	3.000	2.250	3.130	2.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	3.000	3.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.750	4.300	2.400	3.000	3.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	3.600	3.250	5.000	4.000	3.000	5.000	3.000	3.500	4.910	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.670	3.600	3.250	3.250	3.000	3.000	3.000	3.000	3.380	3.490	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	4.000	3.000	4.000	3.000	3.500
25	3.170	3.000	2.500	3.750	3.000	3.000	4.000	3.000	2.880	3.410	2.000	3.000	3.000	3.000	3.000	3.000	2.000	4.000	4.000	3.000	4.000	3.000	3.000	3.500
26	5.000	3.200	3.250	4.250	4.000	4.000	4.000	4.000	3.420	4.590	3.000	3.000	3.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	4.670
27	3.330	3.000	3.000	3.500	3.000	3.000	3.000	3.000	3.040	3.230	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	4.040	3.960	4.000	4.000	3.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	2.750	3.950	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000

MV descriptives

	Mean	Median	Observed min	Observed max	ard deviation	xcess kurtosis	Skewness	rvations used	s test statistic	Mises p value
CP	3.977	4.000	3.000	5.000	0.651	-0.946	0.224	30.000	0.085	0.169
CPP	3.820	3.900	3.000	5.000	0.550	-0.802	-0.080	30.000	0.089	0.153
CS	3.617	3.750	1.250	5.000	0.749	2.088	-0.744	30.000	0.061	0.351
CX	4.000	4.000	3.000	5.000	0.581	-0.279	0.000	30.000	0.163	0.015
FP1	3.367	3.000	1.000	5.000	0.948	1.051	-0.583	30.000	0.357	0.000
FP2	3.533	4.000	1.000	5.000	0.921	0.635	-0.507	30.000	0.300	0.000
FP3	3.767	4.000	2.000	5.000	0.920	-0.664	-0.310	30.000	0.269	0.001
FP4	3.500	3.500	2.000	5.000	0.806	-0.347	0.000	30.000	0.352	0.000
FR	3.583	3.665	1.170	5.000	0.777	1.688	-0.891	30.000	0.075	0.230
FS	3.901	3.915	2.860	5.000	0.510	-0.136	0.302	30.000	0.053	0.458
GS	3.240	3.300	1.000	5.000	0.822	0.675	-0.518	30.000	0.069	0.281
NFP1	3.733	4.000	3.000	5.000	0.727	-0.972	0.480	30.000	0.432	0.000
NFP2	3.733	4.000	3.000	5.000	0.680	-0.770	0.409	30.000	0.473	0.000
NFP3	3.700	4.000	2.000	5.000	0.737	-0.312	0.042	30.000	0.418	0.000
NFP4	3.700	4.000	2.000	5.000	0.690	0.056	-0.141	30.000	0.515	0.000
NFP5	3.800	4.000	2.000	5.000	0.748	-0.231	-0.141	30.000	0.418	0.000
NFP6	4.000	4.000	3.000	5.000	0.683	-0.789	0.000	30.000	0.471	0.000
RA	4.033	4.000	2.750	5.000	0.569	0.189	-0.298	30.000	0.069	0.275
TA1	3.933	4.000	2.000	5.000	0.814	-0.590	-0.262	30.000	0.327	0.000
TA2	4.067	4.000	2.000	5.000	0.680	1.753	-0.758	30.000	0.681	0.000
TA3	4.167	4.000	3.000	5.000	0.734	-1.095	-0.286	30.000	0.392	0.000
TA4	4.167	4.000	3.000	5.000	0.820	-1.487	-0.333	30.000	0.393	0.000
TS	3.828	4.000	1.670	5.000	0.865	0.317	-0.764	30.000	0.090	0.146

Indicator data (standardized)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	1.572	2.146	1.846	1.721	1.723	1.592	1.341	1.861	1.824	2.155	2.141	1.742	1.863	1.764	1.883	1.604	1.464	1.699	1.311	1.373	1.135	1.016	1.354
1	-0.226	-0.036	0.178	1.291	-0.387	-0.579	-0.834	-0.620	0.267	0.528	1.168	-1.008	0.392	-0.950	0.435	-1.069	1.464	0.820	1.311	-0.098	-0.227	-0.203	0.395
2	1.572	-0.400	0.512	1.721	0.668	0.507	0.254	0.620	0.537	1.018	0.681	0.367	0.392	0.407	0.435	0.267	0.000	-0.059	1.311	-0.098	-0.227	-0.203	0.198
3	0.542	0.691	-1.157	-1.721	-0.387	0.507	-0.834	1.861	0.807	0.038	-0.779	1.742	-1.079	0.407	0.435	0.267	0.000	1.259	0.082	-0.098	1.135	1.016	1.158
4	-1.502	-1.491	-0.823	-1.721	0.668	-0.579	0.254	-0.620	-0.750	-2.040	-0.292	0.367	0.392	-0.950	-1.014	-1.069	0.000	-2.255	-2.376	-3.040	-1.589	-1.423	-0.958
5	0.035	0.327	0.512	0.000	-0.387	0.507	0.254	0.620	1.078	-0.335	0.925	-1.008	0.392	0.407	0.435	0.267	0.000	-0.937	0.082	-0.098	-0.227	-0.203	-0.183
6	-1.502	-1.491	-3.159	-1.721	-2.496	-1.664	-1.921	-1.861	-3.105	-1.021	-2.725	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-0.059	0.082	-0.098	1.135	1.016	-2.495
7	-0.995	1.055	1.846	0.430	-2.496	-2.750	1.341	-0.620	-1.020	-0.766	0.195	0.367	0.392	0.407	-1.014	0.267	0.000	-0.498	-1.147	-0.098	-1.589	-1.423	-1.917
8	-0.734	0.327	0.178	0.000	0.668	0.507	-1.921	-1.861	-0.480	-0.609	-0.049	1.742	0.392	-2.306	-2.462	1.604	0.000	-0.498	-1.147	-0.098	1.135	-1.423	0.002
9	0.542	1.055	1.179	-0.430	-1.441	-1.664	-0.834	0.620	-0.969	0.803	-0.535	1.742	1.863	1.764	0.435	1.604	1.464	0.381	1.311	1.373	1.135	-1.423	-0.576
10	0.296	1.055	0.845	0.000	1.723	1.592	1.341	0.620	1.026	0.626	0.925	1.742	1.863	1.764	1.883	1.604	1.464	-0.059	0.082	-0.098	1.135	-0.203	0.776
11	0.035	0.691	0.178	0.000	-0.387	-0.579	0.254	-0.620	0.704	-0.256	0.438	0.367	0.392	-0.950	0.435	0.267	0.000	-0.937	0.082	-0.098	-0.227	1.016	0.776
12	0.035	-0.036	0.512	0.000	-0.387	0.507	-0.834	0.620	0.537	-0.021	0.681	-1.008	-1.079	0.407	1.883	0.267	0.000	0.381	-1.147	-0.098	1.135	1.016	0.198
13	-0.472	0.327	-0.156	0.000	-0.387	0.507	-0.834	-0.620	-0.055	0.018	0.438	0.367	0.392	-0.950	-1.014	-1.069	-1.464	0.381	1.311	1.373	-0.227	1.016	0.395
14	-0.995	-0.036	-0.489	-0.430	-0.387	0.507	0.254	0.620	-0.428	-0.825	-0.535	0.367	0.392	0.407	-1.014	0.267	0.000	-0.937	-1.147	-0.098	-0.227	-0.203	0.198
15	-1.241	-1.491	-0.823	-1.721	1.723	1.592	1.341	1.861	-0.106	-1.021	0.195	0.367	0.392	0.407	0.435	0.267	-1.464	-0.059	0.082	-0.098	-1.589	-0.203	-0.958
16	0.035	0.327	0.512	0.430	0.668	0.507	0.254	0.620	0.537	0.156	0.195	0.367	0.392	0.407	0.435	0.267	1.464	0.381	0.082	-0.098	-0.227	1.016	0.198
17	-0.226	-0.400	-0.156	0.000	0.668	-0.579	0.254	0.620	0.486	0.116	-0.292	-1.008	-1.079	0.407	0.435	-1.069	0.000	0.381	-1.147	-0.098	-0.227	-1.423	0.002
18	0.035	1.055	0.512	1.721	-0.387	-0.579	0.254	-0.620	0.910	-0.119	1.168	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	0.381	0.082	-1.569	-1.589	1.016	0.395
19	0.035	0.327	0.512	0.000	0.668	1.592	1.341	-0.620	0.537	0.116	0.925	0.367	0.392	0.407	0.435	0.267	1.464	-0.059	0.082	-0.098	-0.227	-0.203	0.198
20	1.572	1.419	1.179	0.861	-0.387	-0.579	1.341	0.620	0.537	1.705	0.925	-1.008	1.863	1.764	0.435	1.604	1.464	1.699	1.311	1.373	1.135	1.016	1.354
21	-1.502	-1.491	-0.156	0.430	-0.387	-0.579	-0.834	-0.620	-1.715	-1.511	-1.508	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-1.379	-1.147	-1.569	-0.227	-0.203	-0.958
22	0.542	1.055	0.845	0.430	-0.387	0.507	-1.921	-1.861	1.502	0.783	-1.022	-1.008	-1.079	0.407	0.435	0.267	0.000	0.820	0.082	1.373	1.135	1.016	1.354
23	1.572	-0.400	-0.489	1.721	0.668	-0.579	1.341	-0.620	-0.106	1.979	-0.292	0.367	0.392	0.407	0.435	0.267	0.000	1.259	1.311	1.373	1.135	1.016	1.354
24	-0.472	-0.400	-0.489	-1.291	-0.387	-0.579	-0.834	-0.620	-0.261	-0.805	-0.292	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-0.498	0.082	-1.569	-0.227	-1.423	-0.380
25	-1.241	-1.491	-1.490	-0.430	-0.387	-0.579	0.254	-0.620	-0.904	-0.962	-1.508	-1.008	-1.079	-0.950	-1.014	-2.405	0.000	-0.059	-1.147	-0.098	-1.589	-1.423	-0.380
26	1.572	-1.128	-0.489	0.430	0.668	0.507	0.254	0.620	-0.209	1.352	-0.292	-1.008	-1.079	0.407	0.435	0.267	0.000	1.699	1.311	1.373	1.135	1.016	0.973
27	-0.995	-1.491	-0.823	-0.861	-0.387	-0.579	-0.834	-0.620	-0.698	-1.315	-0.292	-1.008	-1.079	-0.950	-1.014	-1.069	-1.464	-2.255	-1.147	-0.098	-1.589	-0.203	-0.761
28	0.542	0.691	0.178	0.000	0.668	0.507	0.254	0.620	0.589	0.116	0.925	0.367	-1.079	0.407	0.435	0.267	0.000	-0.498	0.082	-0.098	-0.227	1.016	0.395
29	1.572	-0.764	-0.823	0.000	0.668	0.507	0.254	0.620	-1.072	0.097	-1.508	0.367	0.392	-0.950	0.435	0.267	0.000	-0.498	0.082	-0.098	-0.227	-1.423	-2.113

Indicator data (correlations)

Empirical correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.482	0.412	0.632	0.357	0.308	0.317	0.413	0.532	0.902	0.370	0.211	0.326	0.530	0.628	0.561	0.487	0.655	0.711	0.581	0.543	0.371	0.570
CPP	0.482	1.000	0.779	0.501	0.012	0.137	0.207	0.203	0.661	0.580	0.618	0.430	0.496	0.525	0.385	0.642	0.550	0.461	0.390	0.407	0.388	0.303	0.547
CS	0.412	0.779	1.000	0.617	0.151	0.115	0.366	0.221	0.617	0.487	0.723	0.271	0.535	0.531	0.390	0.592	0.554	0.250	0.245	0.279	0.131	0.036	0.419
CX	0.632	0.501	0.617	1.000	0.197	0.078	0.328	0.018	0.490	0.723	0.562	-0.020	0.295	0.253	0.312	0.268	0.399	0.485	0.511	0.401	0.176	0.297	0.503
FP1	0.357	0.012	0.151	0.197	1.000	0.806	0.442	0.458	0.519	0.302	0.426	0.335	0.255	0.205	0.423	0.291	0.257	0.132	0.118	0.014	0.056	0.050	0.422
FP2	0.308	0.137	0.115	0.078	0.806	1.000	0.226	0.449	0.580	0.264	0.394	0.312	0.174	0.236	0.461	0.348	0.212	0.189	0.181	0.156	0.214	0.279	0.449
FP3	0.317	0.207	0.366	0.328	0.442	0.226	1.000	0.517	0.324	0.317	0.497	0.206	0.487	0.536	0.415	0.271	0.371	0.158	0.157	0.078	-0.239	0.007	0.180
FP4	0.413	0.203	0.221	0.018	0.458	0.449	0.517	1.000	0.404	0.331	0.372	0.341	0.304	0.645	0.629	0.387	0.303	0.309	0.254	0.182	0.084	0.126	0.234
FR	0.532	0.661	0.617	0.490	0.519	0.580	0.324	0.404	1.000	0.548	0.758	0.174	0.220	0.455	0.597	0.386	0.429	0.404	0.309	0.250	0.179	0.384	0.798

FS	0.902	0.580	0.487	0.723	0.302	0.264	0.317	0.331	0.548	1.000	0.440	0.212	0.423	0.628	0.643	0.568	0.579	0.828	0.800	0.751	0.636	0.449	0.679
GS	0.370	0.618	0.723	0.562	0.426	0.394	0.497	0.372	0.758	0.440	1.000	0.219	0.460	0.383	0.444	0.403	0.427	0.239	0.333	0.126	-0.022	0.247	0.543
NFP1	0.211	0.430	0.271	-0.020	0.335	0.312	0.206	0.341	0.174	0.212	0.219	1.000	0.598	0.286	0.173	0.637	0.403	0.082	0.139	0.171	0.271	-0.093	0.147
NFP2	0.326	0.496	0.535	0.295	0.255	0.174	0.487	0.304	0.220	0.423	0.460	0.598	1.000	0.506	0.327	0.681	0.646	0.174	0.390	0.327	0.223	-0.100	0.167
NFP3	0.530	0.525	0.531	0.253	0.205	0.236	0.536	0.645	0.455	0.628	0.383	0.286	0.506	1.000	0.740	0.616	0.596	0.501	0.411	0.506	0.400	0.248	0.406
NFP4	0.628	0.385	0.390	0.312	0.423	0.461	0.415	0.629	0.597	0.643	0.444	0.173	0.327	0.740	1.000	0.465	0.565	0.492	0.439	0.398	0.427	0.383	0.443
NFP5	0.561	0.642	0.592	0.268	0.291	0.348	0.271	0.387	0.386	0.568	0.403	0.637	0.681	0.616	0.465	1.000	0.587	0.348	0.361	0.485	0.607	0.163	0.358
NFP6	0.487	0.550	0.554	0.399	0.257	0.212	0.371	0.303	0.429	0.579	0.427	0.403	0.646	0.596	0.565	0.587	1.000	0.407	0.300	0.359	0.399	0.000	0.413
RA	0.655	0.461	0.250	0.485	0.132	0.189	0.158	0.309	0.404	0.828	0.239	0.082	0.174	0.501	0.492	0.348	0.407	1.000	0.707	0.683	0.605	0.488	0.590
TA1	0.711	0.390	0.245	0.511	0.118	0.181	0.157	0.254	0.309	0.800	0.333	0.139	0.390	0.411	0.439	0.361	0.300	0.707	1.000	0.671	0.465	0.466	0.450
TA2	0.581	0.407	0.279	0.401	0.014	0.156	0.078	0.182	0.250	0.751	0.126	0.171	0.327	0.506	0.398	0.485	0.359	0.683	0.671	1.000	0.579	0.399	0.445
TA3	0.543	0.388	0.131	0.176	0.056	0.214	-0.239	0.084	0.179	0.636	-0.022	0.271	0.223	0.400	0.427	0.607	0.399	0.605	0.465	0.579	1.000	0.397	0.456
TA4	0.371	0.303	0.036	0.297	0.050	0.279	0.007	0.126	0.384	0.449	0.247	-0.093	-0.100	0.248	0.383	0.163	0.000	0.488	0.466	0.399	0.397	1.000	0.558
TS	0.570	0.547	0.419	0.503	0.422	0.449	0.180	0.234	0.798	0.679	0.543	0.147	0.167	0.406	0.443	0.358	0.413	0.590	0.450	0.445	0.456	0.558	1.000

Model implied saturated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.482	0.412	0.632	0.161	0.174	0.086	0.153	0.532	0.902	0.370	0.282	0.373	0.425	0.382	0.421	0.400	0.655	0.598	0.619	0.566	0.458	0.570
CPP	0.482	1.000	0.779	0.501	0.107	0.116	0.057	0.102	0.661	0.580	0.618	0.187	0.248	0.283	0.254	0.280	0.266	0.461	0.398	0.411	0.376	0.304	0.547
CS	0.412	0.779	1.000	0.617	0.053	0.058	0.028	0.051	0.617	0.487	0.723	0.093	0.123	0.141	0.126	0.139	0.132	0.250	0.198	0.205	0.187	0.152	0.419
CX	0.632	0.501	0.617	1.000	0.099	0.107	0.053	0.094	0.490	0.723	0.562	0.173	0.229	0.262	0.235	0.259	0.246	0.485	0.368	0.381	0.348	0.282	0.503
FP1	0.161	0.107	0.053	0.099	1.000	0.741	0.363	0.651	0.075	0.192	0.045	0.256	0.339	0.387	0.348	0.383	0.363	0.179	0.170	0.176	0.161	0.130	0.131
FP2	0.174	0.116	0.058	0.107	0.741	1.000	0.394	0.707	0.082	0.208	0.049	0.278	0.368	0.419	0.377	0.415	0.394	0.194	0.185	0.191	0.174	0.141	0.142
FP3	0.086	0.057	0.028	0.053	0.363	0.394	1.000	0.346	0.040	0.102	0.024	0.136	0.180	0.206	0.185	0.204	0.193	0.095	0.090	0.094	0.086	0.069	0.070
FP4	0.153	0.102	0.051	0.094	0.651	0.707	0.346	1.000	0.072	0.183	0.043	0.244	0.323	0.369	0.331	0.365	0.347	0.170	0.162	0.168	0.153	0.124	0.125
FR	0.532	0.661	0.617	0.490	0.075	0.082	0.040	0.072	1.000	0.548	0.758	0.132	0.175	0.199	0.179	0.197	0.187	0.404	0.280	0.290	0.265	0.214	0.798
FS	0.902	0.580	0.487	0.723	0.192	0.208	0.102	0.183	0.548	1.000	0.440	0.336	0.446	0.508	0.457	0.503	0.478	0.828	0.715	0.739	0.676	0.547	0.679
GS	0.370	0.618	0.723	0.562	0.045	0.049	0.024	0.043	0.758	0.440	1.000	0.080	0.105	0.120	0.108	0.119	0.113	0.239	0.169	0.175	0.160	0.129	0.543
NFP1	0.282	0.187	0.093	0.173	0.256	0.278	0.136	0.244	0.132	0.336	0.080	1.000	0.427	0.487	0.438	0.482	0.458	0.313	0.267	0.277	0.253	0.205	0.230
NFP2	0.373	0.248	0.123	0.229	0.339	0.368	0.180	0.323	0.175	0.446	0.105	0.427	1.000	0.645	0.580	0.639	0.607	0.415	0.354	0.366	0.335	0.271	0.305
NFP3	0.425	0.283	0.141	0.262	0.387	0.419	0.206	0.369	0.199	0.508	0.120	0.487	0.645	1.000	0.661	0.728	0.692	0.473	0.404	0.418	0.382	0.309	0.347
NFP4	0.382	0.254	0.126	0.235	0.348	0.377	0.185	0.331	0.179	0.457	0.108	0.438	0.580	0.661	1.000	0.655	0.622	0.425	0.363	0.376	0.343	0.278	0.312
NFP5	0.421	0.280	0.139	0.259	0.383	0.415	0.204	0.365	0.197	0.503	0.119	0.482	0.639	0.728	0.655	1.000	0.685	0.468	0.400	0.414	0.378	0.306	0.344
NFP6	0.400	0.266	0.132	0.246	0.363	0.394	0.193	0.347	0.187	0.478	0.113	0.458	0.607	0.692	0.622	0.685	1.000	0.445	0.380	0.393	0.359	0.291	0.326
RA	0.655	0.461	0.250	0.485	0.179	0.194	0.095	0.170	0.404	0.828	0.239	0.313	0.415	0.473	0.425	0.468	0.445	1.000	0.665	0.688	0.629	0.509	0.590
TA1	0.598	0.398	0.198	0.368	0.170	0.185	0.090	0.162	0.280	0.715	0.169	0.267	0.354	0.404	0.363	0.400	0.380	0.665	1.000	0.726	0.664	0.537	0.489
TA2	0.619	0.411	0.205	0.381	0.176	0.191	0.094	0.168	0.290	0.739	0.175	0.277	0.366	0.418	0.376	0.414	0.393	0.688	0.726	1.000	0.686	0.556	0.505
TA3	0.566	0.376	0.187	0.348	0.161	0.174	0.086	0.153	0.265	0.676	0.160	0.253	0.335	0.382	0.343	0.378	0.359	0.629	0.664	0.686	1.000	0.508	0.462
TA4	0.458	0.304	0.152	0.282	0.130	0.141	0.069	0.124	0.214	0.547	0.129	0.205	0.271	0.309	0.278	0.306	0.291	0.509	0.537	0.556	0.508	1.000	0.374
TS	0.570	0.547	0.419	0.503	0.131	0.142	0.070	0.125	0.798	0.679	0.543	0.230	0.305	0.347	0.312	0.344	0.326	0.590	0.489	0.505	0.462	0.374	1.000

Model implied estimated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.482	0.412	0.632	0.145	0.157	0.077	0.138	0.532	0.902	0.370	0.228	0.302	0.344	0.309	0.341	0.324	0.655	0.598	0.619	0.566	0.458	0.570
CPP	0.482	1.000	0.779	0.501	0.096	0.104	0.051	0.092	0.661	0.580	0.618	0.151	0.201	0.229	0.206	0.226	0.215	0.461	0.398	0.411	0.376	0.304	0.547
CS	0.412	0.779	1.000	0.617	0.048	0.052	0.026	0.046	0.617	0.487	0.723	0.075	0.100	0.114	0.102	0.113	0.107	0.250	0.198	0.205	0.187	0.152	0.419
CX	0.632	0.501	0.617	1.000	0.089	0.097	0.047	0.085	0.490	0.723	0.562	0.140	0.186	0.212	0.190	0.210	0.199	0.485	0.368	0.381	0.348	0.282	0.503
FP1	0.145	0.096	0.048	0.089	1.000	0.741	0.363	0.651	0.068	0.173	0.041	0.065	0.086	0.098	0.088	0.097	0.092	0.161	0.170	0.176	0.161	0.130	0.118
FP2	0.157	0.104	0.052	0.097	0.741	1.000	0.394	0.707	0.074	0.188	0.044	0.070	0.093	0.106	0.095	0.105	0.100	0.175	0.185	0.191	0.174	0.141	0.128
FP3	0.077	0.051	0.026	0.047	0.363	0.394	1.000	0.346	0.036	0.092	0.022	0.034	0.046	0.052	0.047	0.052	0.049	0.086	0.090	0.094	0.086	0.069	0.063
FP4	0.138	0.092	0.046	0.085	0.651	0.707	0.346	1.000	0.065	0.165	0.039	0.062	0.082	0.093	0.084	0.092	0.088	0.154	0.162	0.168	0.153	0.124	0.113
FR	0.532	0.661	0.617	0.490	0.068	0.074	0.036	0.065	1.000	0.548	0.758	0.107	0.141	0.161	0.145	0.160	0.152	0.404	0.280	0.290	0.265	0.214	0.798
FS	0.902	0.580	0.487	0.723	0.173	0.188	0.092	0.165	0.548	1.000	0.440	0.272	0.361	0.411	0.370	0.407	0.387	0.828	0.715	0.739	0.676	0.547	0.679
GS	0.370	0.618	0.723	0.562	0.041	0.044	0.022	0.039	0.758	0.440	1.000	0.064	0.085	0.097	0.087	0.096	0.091	0.239	0.169	0.175	0.160	0.129	0.543
NFP1	0.228	0.151	0.075	0.140	0.065	0.070	0.034	0.062	0.107	0.272	0.064	1.000	0.427	0.487	0.438	0.482	0.458	0.253	0.267	0.277	0.253	0.205	0.186
NFP2	0.302	0.201	0.100	0.186	0.086	0.093	0.046	0.082	0.141	0.361	0.085	0.427	1.000	0.645	0.580	0.639	0.607	0.336	0.354	0.366	0.335	0.271	0.246
NFP3	0.344	0.229	0.114	0.212	0.098	0.106	0.052	0.093	0.161	0.411	0.097	0.487	0.645	1.000	0.661	0.728	0.692	0.383	0.404	0.418	0.382	0.309	0.281
NFP4	0.309	0.206	0.102	0.190	0.088	0.095	0.047	0.084	0.145	0.370	0.087	0.438	0.580	0.661	1.000	0.655	0.622	0.344	0.363	0.376	0.343	0.278	0.253
NFP5	0.341	0.226	0.113	0.210	0.097	0.105	0.052	0.092	0.160	0.407	0.096	0.482	0.639	0.728	0.655	1.000	0.685	0.379	0.400	0.414	0.378	0.306	0.278
NFP6	0.324	0.215	0.107	0.199	0.092	0.100	0.049	0.088	0.152	0.387	0.091	0.458	0.607	0.692	0.622	0.685	1.000	0.360	0.380	0.393	0.359	0.291	0.264
RA	0.655	0.461	0.250	0.485	0.161	0.175	0.086	0.154	0.404	0.828	0.239	0.253	0.336	0.383	0.344	0.379	0.360	1.000	0.665	0.688	0.629	0.509	0.590
TA1	0.598	0.398	0.198	0.368	0.170	0.185	0.090	0.162	0.280	0.715	0.169	0.267	0.354	0.404	0.363	0.400	0.380	0.665	1.000	0.726	0.664	0.537	0.489
TA2	0.619	0.411	0.205	0.381	0.176	0.191	0.094	0.168	0.290	0.739	0.175	0.277	0.366	0.418	0.376	0.414	0.393	0.688	0.726	1.000	0.686	0.556	0.505
TA3	0.566	0.376	0.187	0.348	0.161	0.174	0.086	0.153	0.265	0.676	0.160	0.253	0.335	0.382	0.343	0.378	0.359	0.629	0.664	0.686	1.000	0.508	0.462
TA4	0.458	0.304	0.152	0.282	0.130	0.141	0.069	0.124	0.214	0.547	0.129	0.205	0.271	0.309	0.278	0.306	0.291	0.509	0.537	0.556	0.508	1.000	0.374
TS	0.570	0.547	0.419	0.503	0.118	0.128	0.063	0.113	0.798	0.679	0.543	0.186	0.246	0.281	0.253	0.278	0.264	0.590	0.489	0.505	0.462	0.374	1.000

Empirical covariance matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.482	0.412	0.632	0.357	0.308	0.317	0.413	0.532	0.902	0.370	0.211	0.326	0.530	0.628	0.561	0.487	0.655	0.711	0.581	0.543	0.371	0.570
CPP	0.482	1.000	0.779	0.501	0.012	0.137	0.207	0.203	0.661	0.580	0.618	0.430	0.496	0.525	0.385	0.642	0.550	0.461	0.390	0.407	0.388	0.303	0.547
CS	0.412	0.779	1.000	0.617	0.151	0.115	0.366	0.221	0.617	0.487	0.723	0.271	0.535	0.531	0.390	0.592	0.554	0.250	0.245	0.279	0.131	0.036	0.419
CX	0.632	0.501	0.617	1.000	0.197	0.078	0.328	0.018	0.490	0.723	0.562	-0.020	0.295	0.253	0.312	0.268	0.399	0.485	0.511	0.401	0.176	0.297	0.503
FP1	0.357	0.012	0.151	0.197	1.000	0.806	0.442	0.458	0.519	0.302	0.426	0.335	0.255	0.205	0.423	0.291	0.257	0.132	0.118	0.014	0.056	0.050	0.422
FP2	0.308	0.137	0.115	0.078	0.806	1.000	0.226	0.449	0.580	0.264	0.394	0.312	0.174	0.236	0.461	0.348	0.212	0.189	0.181	0.156	0.214	0.279	0.449
FP3	0.317	0.207	0.366	0.328	0.442	0.226	1.000	0.517	0.324	0.317	0.497	0.206	0.487	0.536	0.415	0.271	0.371	0.158	0.157	0.078	-0.239	0.007	0.180
FP4	0.413	0.203	0.221	0.018	0.458	0.449	0.517	1.000	0.404	0.331	0.372	0.341	0.304	0.645	0.629	0.387	0.303	0.309	0.254	0.182	0.084	0.126	0.234
FR	0.532	0.661	0.617	0.490	0.519	0.580	0.324	0.404	1.000	0.548	0.758	0.174	0.220	0.455	0.597	0.386	0.429	0.404	0.309	0.250	0.179	0.384	0.798
FS	0.902	0.580	0.487	0.723	0.302	0.264	0.317	0.331	0.548	1.000	0.440	0.212	0.423	0.628	0.643	0.568	0.579	0.828	0.800	0.751	0.636	0.449	0.679
GS	0.370	0.618	0.723	0.562	0.426	0.394	0.497	0.372	0.758	0.440	1.000	0.219	0.460	0.383	0.444	0.403	0.427	0.239	0.333	0.126	-0.022	0.247	0.543
NFP1	0.211	0.430	0.271	-0.020	0.335	0.312	0.206	0.341	0.174	0.212	0.219	1.000	0.598	0.286	0.173	0.637	0.403	0.082	0.139	0.171	0.271	-0.093	0.147
NFP2	0.326	0.496	0.535	0.295	0.255	0.174	0.487	0.304	0.220	0.423	0.460	0.598	1.000	0.506	0.327	0.681	0.646	0.174	0.390	0.327	0.223	-0.100	0.167
NFP3	0.530	0.525	0.531	0.253	0.205	0.236	0.536	0.645	0.455	0.628	0.383	0.286	0.506	1.000	0.740	0.616	0.596	0.501	0.411	0.506	0.400	0.248	0.406
NFP4	0.628	0.385	0.390	0.312	0.423	0.461	0.415	0.629	0.597	0.643	0.444	0.173	0.327	0.740	1.000	0.465	0.565	0.492	0.439	0.398	0.427	0.383	0.443
NFP5	0.561	0.642	0.592	0.268	0.291	0.348	0.271	0.387	0.386	0.568	0.403	0.637	0.681	0.616	0.465	1.000	0.587	0.348	0.361	0.485	0.607	0.163	0.358
NFP6	0.487	0.550	0.554	0.399	0.257	0.212	0.371	0.303	0.429	0.579	0.427	0.403	0.646	0.596	0.565	0.587	1.000	0.407	0.300	0.359	0.399	0.000	0.413

RA	0.655	0.461	0.250	0.485	0.132	0.189	0.158	0.309	0.404	0.828	0.239	0.082	0.174	0.501	0.492	0.348	0.407	1.000	0.707	0.683	0.605	0.488	0.590
TA1	0.711	0.390	0.245	0.511	0.118	0.181	0.157	0.254	0.309	0.800	0.333	0.139	0.390	0.411	0.439	0.361	0.300	0.707	1.000	0.671	0.465	0.466	0.450
TA2	0.581	0.407	0.279	0.401	0.014	0.156	0.078	0.182	0.250	0.751	0.126	0.171	0.327	0.506	0.398	0.485	0.359	0.683	0.671	1.000	0.579	0.399	0.445
TA3	0.543	0.388	0.131	0.176	0.056	0.214	-0.239	0.084	0.179	0.636	-0.022	0.271	0.223	0.400	0.427	0.607	0.399	0.605	0.465	0.579	1.000	0.397	0.456
TA4	0.371	0.303	0.036	0.297	0.050	0.279	0.007	0.126	0.384	0.449	0.247	-0.093	-0.100	0.248	0.383	0.163	0.000	0.488	0.466	0.399	0.397	1.000	0.558
TS	0.570	0.547	0.419	0.503	0.422	0.449	0.180	0.234	0.798	0.679	0.543	0.147	0.167	0.406	0.443	0.358	0.413	0.590	0.450	0.445	0.456	0.558	1.000

Appendix F:

Data Analyses Report for 150 SMEs as extracted from SPSS Version 29

i. Demographic Statistics for 150 SMEs

Frequencies

Notes

Output Created		11-APR-2024 02:06:29
Comments		
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	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=A1 A2 A3 A4 A5 A6 A7 A8 A9 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00

Statistics

		Gender	Age	Education Level	Position	What is the nature of your business?	Type of Business Entity	Duration in Operation
N	Valid	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0

Statistics

		Number of Employees	Annual Sales
N	Valid	150	150
	Missing	0	0

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	70	46.7	46.7	46.7
	Female	80	53.3	53.3	100.0
	Total	150	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 25	25	16.7	16.7	16.7

	26 - 35	71	47.3	47.3	64.0
	36 - 45	35	23.3	23.3	87.3
	46 - 55	14	9.3	9.3	96.7
	Above 56	5	3.3	3.3	100.0
	Total	150	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Basic/ Secondary	15	10.0	10.0	10.0
	Undergraduate	120	80.0	80.0	90.0
	Master's	11	7.3	7.3	97.3
	PhD/ Doctorate	3	2.0	2.0	99.3
	Other	1	.7	.7	100.0
	Total	150	100.0	100.0	

Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owner/ Director	42	28.0	28.0	28.0
	Executive	50	33.3	33.3	61.3
	Manager	58	38.7	38.7	100.0
	Total	150	100.0	100.0	

What is the nature of your business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Utilities, Transportation, Information & Communication	37	24.7	24.7	24.7
	Wholesale and Retail, Food and Beverage and Accommodation	49	32.7	32.7	57.3
	Finance and Insurance, Real Estate and Business Service	49	32.7	32.7	90.0
	Government Service	2	1.3	1.3	91.3
	Others services	13	8.7	8.7	100.0
	Total	150	100.0	100.0	

Type of Business Entity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sole Proprietorship	68	45.3	45.3	45.3
	Partnership	42	28.0	28.0	73.3
	Limited Liability Partnership (LLP)	4	2.7	2.7	76.0
	Private Limited Company (Sdn. Bhd.)	36	24.0	24.0	100.0
	Total	150	100.0	100.0	

Duration in Operation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2 years	38	25.3	25.3	25.3
	2 to 4 years	54	36.0	36.0	61.3
	5 to 7 years	32	21.3	21.3	82.7
	8 to 10 years	4	2.7	2.7	85.3
	More than 10 years	22	14.7	14.7	100.0
	Total	150	100.0	100.0	

Number of Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 – 4 (Micro)	94	62.7	62.7	62.7
	5 – 29 (Small)	35	23.3	23.3	86.0
	30 – 75 (Medium)	21	14.0	14.0	100.0
	Total	150	100.0	100.0	

Annual Sales

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than RM300,000	110	73.3	73.3	73.3
	RM300,000 – RM3 Millions	27	18.0	18.0	91.3
	RM3 Millions – RM20 Millions	13	8.7	8.7	100.0
	Total	150	100.0	100.0	

Multiple Response

Notes

Output Created		11-APR-2024 02:08:17
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		MULT RESPONSE GROUPS=$A10 (a10cc a10r a10sm a10ec a10ft a10erp

		a10bda a10o (1)) /FREQUENCIES=$A10.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$A10[a]	150	100.0%	0	0.0%	150	100.0%

a. Dichotomy group tabulated at value 1.

$A10 Frequencies

		Responses		
		N	Percent	Percent of Cases
$A10[a]	Cloud Computing	103	26.9%	68.7%
	Robotics	3	0.8%	2.0%
	Social Media	111	29.0%	74.0%
	E-commerce	40	10.4%	26.7%
	Financial Technology	35	9.1%	23.3%
	Enterprise Resource Planning	43	11.2%	28.7%
	Big Data Analytic	47	12.3%	31.3%
	Other	1	0.3%	0.7%
Total		383	100.0%	255.3%

a. Dichotomy group tabulated at value 1.

Frequencies

Notes

Output Created		11-APR-2024 02:09:55
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=A11 A12 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.01
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ii. Central Tendency and Dispersion for 150 SMEs

Descriptives for Technology Adoption

Notes

Output Created		12-APR-2024 17:03:55
Comments		
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Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=TA1 TA2 TA3 TA4 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
My company adopts technology	150	2.00	5.00	4.6467	0.69646
My company started using technology regularly	150	2.00	5.00	4.6800	0.61655
My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	150	2.00	5.00	4.7133	0.63813
My company would highly recommend technology adoption for other enterprises	150	3.00	5.00	4.7267	0.60086
Valid N (listwise)	150			4.6917	0.6380

Descriptives for Technological Factors

Notes

Output Created	12-APR-2024 17:05:49
Comments	

Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/5 Questionnaire/SPSS Data Running 1.sav
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	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=RA1 RA2 RA3 RA4 CP1 CP2 CP3 CP4 CP5 CP6 CX1 CX2 CX3 CX4 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Technology adoption makes my company's business more efficient	150	2.00	5.00	4.7733	0.52002
Technology adoption lowers my company's costs	150	1.00	5.00	4.5267	0.86464
Technology adoption improves my company's customer service	150	2.00	5.00	4.7067	0.60807
Technology adoption attracts new sales, new customers, and/or new markets to my company	150	3.00	5.00	4.6667	0.64159
Technology adoption fits with my company's needs for existing production and service processes	150	3.00	5.00	4.6667	0.64159
Technology adoption fits with the needs of my company's existing management system	150	2.00	5.00	4.6467	0.68676
Technology adoption fits with my company's existing organisational structure	150	2.00	5.00	4.6200	0.70158
Technology adoption fits with my company's existing technical needs	150	2.00	5.00	4.6467	0.67691
Technology adoption fits with my company's current business needs	150	3.00	5.00	4.6867	0.62538

Technology adoption fits with the needs of my company's existing customers	150	2.00	5.00	4.6667	0.68215
The use of technology would be easy for my company	150	2.00	5.00	4.6867	0.59231
Technology adoption would be easy on marketing activities for my company	150	2.00	5.00	4.7067	0.60807
The skills needed to use technology would be easy for employees in my company	150	2.00	5.00	4.6600	0.65364
It is easy to become skilled at using technology for my company	150	2.00	5.00	4.6667	0.65196
Valid N (listwise)	150			4.6662	0.6539

Notes

Output Created		12-APR-2024 17:07:32
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Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=FS1 FS2 FS3 TS1 TS2 TS3 TS4 TS5 TS6 FR1 FR2 FR3 CPP1 CPP2 CPP3 CPP4 CPP5 CS1 CS2 CS3 CS4 GS1 GS2 GS3 GS4 GS5 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Descriptives for Organisational Factors

Notes

Output Created	12-APR-2024 17:09:10
Comments	

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	Weight	<none>
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	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=FS1 FS2 FS3 TS1 TS2 TS3 TS4 TS5 TS6 FR1 FR2 FR3 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The capital of my company is higher compared to the other companies	150	1.00	5.00	4.4667	0.93885
The revenue of my company is higher compared to the other companies	150	1.00	5.00	4.4333	0.99270
The number of employees at my company is higher compared to the other companies	150	1.00	5.00	4.2933	1.21261
Top management in my company believes that introducing technologies is strategically important	150	1.00	5.00	4.6933	0.67503
Top management in my company is willing to invest in the introduction of technology	150	1.00	5.00	4.6267	0.78190
Top management in my company is willing to take responsibility for the process of introducing technology	150	1.00	5.00	4.6200	0.76562
Top management in my company encourages the updating of the company's technology to improve competitiveness	150	1.00	5.00	4.6667	0.76559

Top management in my company actively encourages the use of technology to gain competitive advantages	150	2.00	5.00	4.6933	0.66501
Top management in my company is willing to provide relevant training	150	1.00	5.00	4.6267	0.79043
Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	150	1.00	5.00	4.4733	0.96026
Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	150	1.00	5.00	4.4400	0.99313
My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	150	1.00	5.00	4.6067	0.76760
Valid N (listwise)	150			4.5533	0.8591

Descriptives for Environmental Factors

Notes

Output Created		12-APR-2024 17:15:02
Comments		
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	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=CPP1 CPP2 CPP3 CPP4 CPP5 CS1 CS2 CS3 CS4 GS1 GS2 GS3 GS4 GS5 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.01

	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The adoption of technology for my company is due to pressure within the industry to upgrade technology	150	2.00	5.00	4.5800	0.77952
The adoption technology for my company is to improve competitiveness in the industry	150	3.00	5.00	4.6533	0.66541
Adopting technology for my company is an important strategy to compete in the current market	150	2.00	5.00	4.6867	0.64648
If technologies are not introduced in my company, customers may choose competitors' products	150	1.00	5.00	4.5667	0.81444
If technologies are not introduced, my company may suffer competitive disadvantages	150	2.00	5.00	4.6000	0.74185
Many customers for my company are keen that we should adopt the usage of technology	150	1.00	5.00	4.5267	0.84898
My company relationship with customers would have suffered if we did not adopt the usage of technology	150	1.00	5.00	4.5000	0.94656
Customers may consider my company as backward if we do not adopt the usage of technology	150	1.00	5.00	4.5600	0.83127
Majority customers demand that my company establish strong relationships with them by adopting technology	150	1.00	5.00	4.4867	0.90292
The government provides sufficient motivational programs for technology adoption	150	1.00	5.00	4.4000	1.07441
The government provides varieties of grants for technology adoption	150	1.00	5.00	4.4000	1.02976
The government offers subsidies for technology adoption	150	1.00	5.00	4.3733	1.05898
The government is adequately driving the use of technology by providing incentives for its adoption	150	1.00	5.00	4.4000	1.02322

The government demonstrates a strong commitment to promote technology adoption	150	1.00	5.00	4.4400	0.98635
Valid N (listwise)	150			4.5124	0.8822

Descriptives for Financial Performance

Notes

Output Created		12-APR-2024 17:15:48
Comments		
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Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=FP1 FP2 FP3 FP4 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	150	1.00	5.00	4.4733	0.90262
My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	150	1.00	5.00	4.5133	0.85716
My company's financial performance measured by sales (e.g., revenue)	150	2.00	5.00	4.6133	0.74893
My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	150	2.00	5.00	4.5000	0.84940
Valid N (listwise)	150			4.5250	0.8395

Descriptives for Non-financial Performance

Notes

Output Created		12-APR-2024 17:16:06
Comments		
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Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=NFP1 NFP2 NFP3 NFP4 NFP5 NFP6 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
My company's non-financial performance measured by employee conditions on their skill and efficiency	150	3.00	5.00	4.5667	0.73655
My company's non-financial performance measured by employee conditions on their commitment and satisfaction	150	3.00	5.00	4.5467	0.74713
My company's non-financial performance measured by valued customers increased number of new customers	150	2.00	5.00	4.5467	0.79077
My company's non-financial performance measured by valued customers increased number of regular or loyal customers	150	2.00	5.00	4.5667	0.77214
My company's non-financial performance measured by product or service development on a larger number of products or services	150	2.00	5.00	4.5933	0.73363
My company's non-financial performance measured by product or service development and an increase in good-quality products or services	150	3.00	5.00	4.6333	0.66974
Valid N (listwise)	150			4.5756	0.7417

Appendix G:

KMO and Bartlett's Test for 150 SMEs extracted from SPSS Version 29

Factor Analysis for Technology Adoption

Notes

Output Created		12-APR-2024 17:59:54
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/5 Questionnaire/SPSS Data Running 1.sav
	Active Dataset	DataSet1
	Filter	<none>
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	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES TA1 TA2 TA3 TA4 /MISSING LISTWISE /ANALYSIS TA1 TA2 TA3 TA4 /PRINT INITIAL CORRELATION DET KMO REPR EXTRACTION ROTATION /FORMAT BLANK(0.50) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.29
	Elapsed Time	00:00:00.00
	Maximum Memory Required	3008 (2.938K) bytes

Correlation Matrix[a]

		My company adopts technology	My company started using technology regularly	My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	My company would highly recommend technology adoption for other enterprises
Correlation	My company adopts technology	1.000	0.876	0.767	0.778
	My company started using technology regularly	0.876	1.000	0.772	0.741
	My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	0.767	0.772	1.000	0.757
	My company would highly recommend technology adoption for other enterprises	0.778	0.741	0.757	1.000

a. Determinant = .028

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.834
Bartlett's Test of Sphericity	Approx. Chi-Square	523.149
	df	6
	Sig.	0.000

Communalities

	Initial	Extraction
My company adopts technology	1.000	0.878
My company started using technology regularly	1.000	0.861
My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	1.000	0.810
My company would highly recommend technology adoption for other enterprises	1.000	0.799

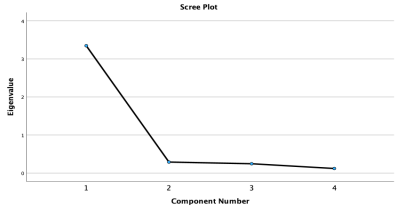
Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.346	83.661	83.661	3.346	83.661	83.661
2	0.289	7.225	90.887			
3	0.245	6.118	97.005			
4	0.120	2.995	100.000			

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix[a]

	Component 1
My company adopts technology	0.937
My company started using technology regularly	0.928

My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	0.900
My company would highly recommend technology adoption for other enterprises	0.894

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reproduced Correlations

		My company adopts technology	My company started using technology regularly	My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	My company would highly recommend technology adoption for other enterprises
Reproduced Correlation	My company adopts technology	.878[a]	0.869	0.843	0.837
	My company started using technology regularly	0.869	.861[a]	0.835	0.829
	My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	0.843	0.835	.810[a]	0.804
	My company would highly recommend technology adoption for other enterprises	0.837	0.829	0.804	.799[a]
Residual[b]	My company adopts technology		0.007	-0.076	-0.059
	My company started using technology regularly	0.007		-0.063	-0.088
	My company adopts technology to support business functions such as accounting, product and service, warehousing and inventory, purchasing, electronic data interchange with trading partners, and information sharing	-0.076	-0.063		-0.047
	My company would highly recommend technology adoption for other enterprises	-0.059	-0.088	-0.047	

Extraction Method: Principal Component Analysis.
a. Reproduced communalities
b. Residuals are computed between observed and reproduced correlations. There are 4 (66.0%) nonredundant residuals with absolute values greater than 0.05.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis for Technological Factors

Notes

Output Created		12-APR-2024 18:00:25
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/5 Questionnaire/SPSS Data Running 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES RA1 RA2 RA3 RA4 CP1 CP2 CP3 CP4 CP5 CP6 CX1 CX2 CX3 CX4 /MISSING LISTWISE /ANALYSIS RA1 RA2 RA3 RA4 CP1 CP2 CP3 CP4 CP5 CP6 CX1 CX2 CX3 CX4 /PRINT INITIAL CORRELATION DET KMO REPR EXTRACTION ROTATION /FORMAT BLANK(0.50) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.21
	Elapsed Time	00:00:00.00
	Maximum Memory Required	25128 (24.539K) bytes

Correlation Matrix[a]

		Technology adoption makes my company's business more efficient	Technology adoption lowers my company's costs	Technology adoption improves my company's customer service	Technology adoption attracts new sales, new customers, and/or new markets to my company	Technology adoption fits with my company's needs for existing production and service processes	Technology adoption fits with the needs of my company's existing management system	Technology adoption fits with my company's existing organisational structure	Technology adoption fits with my company's existing technical needs	Technology adoption fits with my company's current business needs	Technology adoption fits with the needs of my company's existing customers	The use of technology would be easy for my company	Technology adoption would be easy on marketing activities for my company	The skills needed to use technology would be easy for employees in my company	It is easy to become skilled at using technology for my company
Correlation	Technology adoption makes my company's business more efficient	1.000	0.790	0.743	0.697	0.758	0.733	0.701	0.686	0.750	0.732	0.639	0.659	0.641	0.647

Technology adoption lowers my company's costs	0.790	1.000	0.819	0.766	0.766	0.801	0.819	0.790	0.779	0.789	0.718	0.653	0.663	0.754
Technology adoption improves my company's customer service	0.743	0.819	1.000	0.711	0.814	0.811	0.791	0.790	0.710	0.750	0.656	0.637	0.710	0.734
Technology adoption attracts new sales, new customers, and/or new markets to my company	0.697	0.766	0.711	1.000	0.870	0.843	0.865	0.840	0.808	0.787	0.712	0.831	0.752	0.727
Technology adoption fits with my company's needs for existing production and service processes	0.758	0.766	0.814	0.870	1.000	0.949	0.895	0.901	0.842	0.849	0.765	0.797	0.752	0.759
Technology adoption fits with the needs of my company's existing management system	0.733	0.801	0.811	0.843	0.949	1.000	0.931	0.899	0.866	0.836	0.732	0.747	0.702	0.724
Technology adoption fits with my company's existing organisational structure	0.701	0.819	0.791	0.865	0.895	0.931	1.000	0.917	0.889	0.841	0.794	0.681	0.755	0.792
Technology adoption fits with my company's existing technical needs	0.686	0.790	0.790	0.840	0.901	0.899	0.917	1.000	0.910	0.906	0.860	0.692	0.743	0.796
Technology adoption fits with my company's current business needs	0.750	0.779	0.710	0.808	0.842	0.866	0.889	0.910	1.000	0.902	0.838	0.674	0.756	0.779
Technology adoption fits with the needs of my company's existing customers	0.732	0.789	0.750	0.787	0.849	0.836	0.841	0.906	0.902	1.000	0.819	0.685	0.722	0.805
The use of technology would be easy for my company	0.639	0.718	0.656	0.712	0.765	0.732	0.794	0.860	0.838	0.819	1.000	0.656	0.798	0.857
Technology adoption would be easy on marketing activities for my company	0.659	0.653	0.637	0.831	0.797	0.747	0.681	0.692	0.674	0.685	0.656	1.000	0.676	0.649
The skills needed to use technology would be easy for employees in my company	0.641	0.663	0.710	0.752	0.752	0.702	0.755	0.743	0.756	0.722	0.798	0.676	1.000	0.866
It is easy to become skilled at using technology for my company	0.647	0.754	0.734	0.727	0.759	0.724	0.792	0.796	0.779	0.805	0.857	0.649	0.866	1.000

a. Determinant = 1.248E-10

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.915
Bartlett's Test of Sphericity	Approx. Chi-Square	3272.472
	df	91
	Sig.	0.000

Communalities

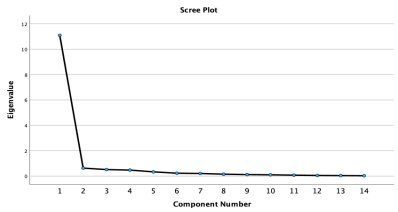
	Initial	Extraction
Technology adoption makes my company's business more efficient	1.000	0.863
Technology adoption lowers my company's costs	1.000	0.767
Technology adoption improves my company's customer service	1.000	0.734
Technology adoption attracts new sales, new customers, and/or new markets to my company	1.000	0.811
Technology adoption fits with my company's needs for existing production and service processes	1.000	0.888
Technology adoption fits with the needs of my company's existing management system	1.000	0.869
Technology adoption fits with my company's existing organisational structure	1.000	0.884
Technology adoption fits with my company's existing technical needs	1.000	0.893
Technology adoption fits with my company's current business needs	1.000	0.857
Technology adoption fits with the needs of my company's existing customers	1.000	0.845
The use of technology would be easy for my company	1.000	0.759
Technology adoption would be easy on marketing activities for my company	1.000	0.645
The skills needed to use technology would be easy for employees in my company	1.000	0.713
It is easy to become skilled at using technology for my company	1.000	0.764

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.093	79.233	79.233	11.093	79.233	79.233
2	0.628	4.482	83.715			
3	0.511	3.650	87.365			
4	0.471	3.365	90.731			
5	0.332	2.372	93.103			
6	0.224	1.599	94.702			
7	0.204	1.457	96.158			
8	0.146	1.041	97.199			
9	0.116	0.827	98.026			
10	0.097	0.696	98.722			
11	0.071	0.505	99.227			
12	0.048	0.341	99.568			
13	0.036	0.255	99.823			
14	0.025	0.177	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1

Technology adoption makes my company's business more efficient	0.814
Technology adoption lowers my company's costs	0.876
Technology adoption improves my company's customer service	0.857
Technology adoption attracts new sales, new customers, and/or new markets to my company	0.901
Technology adoption fits with my company's needs for existing production and service processes	0.942
Technology adoption fits with the needs of my company's existing management system	0.932
Technology adoption fits with my company's existing organisational structure	0.940
Technology adoption fits with my company's existing technical needs	0.945
Technology adoption fits with my company's current business needs	0.926
Technology adoption fits with the needs of my company's existing customers	0.919
The use of technology would be easy for my company	0.871
Technology adoption would be easy on marketing activities for my company	0.803
The skills needed to use technology would be easy for employees in my company	0.844
It is easy to become skilled at using technology for my company	0.874

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reproduced Correlations

		Technology adoption makes my company's business more efficient	Technology adoption lowers my company's costs	Technology adoption improves my company's customer service	Technology adoption attracts new sales, new customers, and/or new markets to my company	Technology adoption fits with my company's needs for existing production and service processes	Technology adoption fits with the needs of my company's existing management system	Technology adoption fits with my company's existing organisational structure	Technology adoption fits with my company's existing technical needs	Technology adoption fits with my company's current business needs	Technology adoption fits with the needs of my company's existing customers	The use of technology would be easy for my company	Technology adoption would be easy on marketing activities for my company	The skills needed to use technology would be easy for employees in my company	It is easy to become skilled at using technology for my company
Reproduced Correlation	Technology adoption makes my company's business more efficient	.663[a]	0.713	0.698	0.734	0.768	0.759	0.766	0.770	0.754	0.749	0.710	0.654	0.688	0.712
	Technology adoption lowers my company's costs	0.713	.767[a]	0.750	0.789	0.825	0.816	0.823	0.827	0.811	0.805	0.763	0.703	0.739	0.765
	Technology adoption improves my company's customer service	0.698	0.750	.734[a]	0.772	0.807	0.798	0.805	0.810	0.793	0.787	0.747	0.688	0.723	0.749
	Technology adoption attracts new sales, new customers, and/or new markets to my company	0.734	0.789	0.772	.811[a]	0.849	0.840	0.847	0.851	0.834	0.828	0.785	0.724	0.761	0.787
	Technology adoption fits with my company's needs for existing production and service processes	0.768	0.825	0.807	0.849	.888[a]	0.878	0.886	0.891	0.873	0.866	0.821	0.757	0.796	0.824
	Technology adoption fits with the needs of my company's existing management system	0.759	0.816	0.798	0.840	0.878	.869[a]	0.876	0.881	0.863	0.857	0.812	0.749	0.787	0.814
	Technology adoption fits with my company's existing organisational structure	0.766	0.823	0.805	0.847	0.886	0.876	.884[a]	0.888	0.870	0.864	0.819	0.755	0.794	0.821
	Technology adoption fits with my company's existing technical needs	0.770	0.827	0.810	0.851	0.891	0.881	0.888	.893[a]	0.875	0.869	0.823	0.759	0.798	0.826
	Technology adoption fits with my company's current business needs	0.754	0.811	0.793	0.834	0.873	0.863	0.870	0.875	.857[a]	0.851	0.807	0.744	0.782	0.809
	Technology adoption fits with the needs of my company's existing customers	0.749	0.805	0.787	0.828	0.866	0.857	0.864	0.869	0.851	.845[a]	0.801	0.738	0.776	0.803
	The use of technology would be easy for my company	0.710	0.763	0.747	0.785	0.821	0.812	0.819	0.823	0.807	0.801	.759[a]	0.700	0.736	0.762
	Technology adoption would be easy on marketing activities for my company	0.654	0.703	0.688	0.724	0.757	0.749	0.755	0.759	0.744	0.738	0.700	.645[a]	0.678	0.702
	The skills needed to use technology would be easy for employees in my company	0.688	0.739	0.723	0.761	0.796	0.787	0.794	0.798	0.782	0.776	0.736	0.678	.713[a]	0.738
	It is easy to become skilled at using technology for my company	0.712	0.765	0.749	0.787	0.824	0.814	0.821	0.826	0.809	0.803	0.762	0.702	0.738	.764[a]
Residual[b]	Technology adoption makes my company's business more efficient		0.077	0.046	-0.036	-0.010	-0.026	-0.065	-0.083	-0.004	-0.017	-0.070	0.004	-0.047	-0.065
	Technology adoption lowers my company's costs	0.077		0.069	-0.022	-0.059	-0.014	-0.004	-0.037	-0.032	-0.016	-0.045	-0.050	-0.076	-0.011
	Technology adoption improves my company's customer service	0.046	0.069		-0.061	0.007	0.012	-0.014	-0.020	-0.084	-0.038	-0.090	-0.051	-0.014	-0.015
	Technology adoption attracts new sales, new customers, and/or new markets to my company	-0.036	-0.022	-0.061		0.021	0.003	0.018	-0.012	-0.026	-0.041	-0.073	0.108	-0.009	-0.060
	Technology adoption fits with my company's needs for existing production and service processes	-0.010	-0.059	0.007	0.021		0.071	0.009	0.011	-0.031	-0.018	-0.056	0.040	-0.044	-0.064
	Technology adoption fits with the needs of my company's existing management system	-0.026	-0.014	0.012	0.003	0.071		0.055	0.018	0.003	-0.021	-0.080	-0.002	-0.085	-0.090
	Technology adoption fits with my company's existing organisational structure	-0.065	-0.004	-0.014	0.018	0.009	0.055		0.028	0.019	-0.023	-0.026	-0.074	-0.038	-0.029
	Technology adoption fits with my company's existing technical needs	-0.083	-0.037	-0.020	-0.012	0.011	0.018	0.028		0.035	0.037	0.037	-0.067	-0.055	-0.030
	Technology adoption fits with my company's current business needs	-0.004	-0.032	-0.084	-0.026	-0.031	0.003	0.019	0.035		0.051	0.031	-0.069	-0.026	-0.030
	Technology adoption fits with the needs of my company's existing customers	-0.017	-0.016	-0.038	-0.041	-0.018	-0.021	-0.023	0.037	0.051		0.018	-0.053	-0.054	0.002
	The use of technology would be easy for my company	-0.070	-0.045	-0.090	-0.073	-0.056	-0.080	-0.026	0.037	0.031	0.018		-0.044	0.062	0.096
	Technology adoption would be easy on marketing activities for my company	0.004	-0.050	-0.051	0.108	0.040	-0.002	-0.074	-0.067	-0.069	-0.053	-0.044		-0.002	-0.053

	The skills needed to use technology would be easy for employees in my company	-0.047	-0.076	-0.014	-0.009	-0.044	-0.085	-0.038	-0.055	-0.026	-0.054	0.062	-0.002		0.128
	It is easy to become skilled at using technology for my company	-0.065	-0.011	-0.015	-0.060	-0.064	-0.090	-0.029	-0.030	-0.030	0.002	0.096	-0.053	0.128	

Extraction Method: Principal Component Analysis.
a. Reproduced communalities
b. Residuals are computed between observed and reproduced correlations. There are 34 (37.0%) nonredundant residuals with absolute values greater than 0.05.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis for Organisational Factors

Notes

Output Created		12-APR-2024 18:01:29
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/5 Questionnaire/SPSS Data Running 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES FS1 FS2 FS3 TS1 TS2 TS3 TS4 TS5 TS6 FR1 FR2 FR3 /MISSING LISTWISE /ANALYSIS FS1 FS2 FS3 TS1 TS2 TS3 TS4 TS5 TS6 FR1 FR2 FR3 /PRINT INITIAL CORRELATION DET KMO REPR EXTRACTION ROTATION /FORMAT BLANK(0.50) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.21
	Elapsed Time	00:00:00.00
	Maximum Memory Required	18976 (18.531K) bytes

Correlation Matrix[a]

		The capital of my company is higher compared to the other companies	The revenue of my company is higher compared to the other companies	The number of employees at my company is higher compared to the other companies	Top management in my company believes that introducing technologies is strategically important	Top management in my company is willing to invest in the introduction of technology	Top management in my company is willing to take responsibility for the process of introducing technology	Top management in my company encourages the updating of the company's technology to improve competitiveness	Top management in my company actively encourages the use of technology to gain competitive advantages	Top management in my company is willing to provide relevant training	Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)
Correlation	The capital of my company is higher compared to the other companies	1.000	0.948	0.911	0.693	0.769	0.799	0.685	0.693	0.679	0.729	0.808	0.657
	The revenue of my company is higher compared to the other companies	0.948	1.000	0.920	0.710	0.729	0.766	0.642	0.660	0.661	0.713	0.806	0.674
	The number of employees at my company is higher compared to the other companies	0.911	0.920	1.000	0.701	0.746	0.779	0.670	0.670	0.654	0.733	0.817	0.673
	Top management in my company believes that introducing technologies is strategically important	0.693	0.710	0.701	1.000	0.812	0.799	0.827	0.776	0.765	0.660	0.653	0.646
	Top management in my company is willing to invest in the introduction of technology	0.769	0.729	0.746	0.812	1.000	0.939	0.923	0.901	0.870	0.702	0.714	0.727
	Top management in my company is willing to take responsibility for the process of introducing technology	0.799	0.766	0.779	0.799	0.939	1.000	0.870	0.877	0.895	0.758	0.769	0.726
	Top management in my company encourages the updating of the company's technology to improve competitiveness	0.685	0.642	0.670	0.827	0.923	0.870	1.000	0.918	0.847	0.663	0.671	0.689
	Top management in my company actively encourages the use of technology to gain competitive advantages	0.693	0.660	0.670	0.776	0.901	0.877	0.918	1.000	0.892	0.744	0.714	0.696
	Top management in my company is willing to provide relevant training	0.679	0.661	0.654	0.765	0.870	0.895	0.847	0.892	1.000	0.791	0.732	0.730
	Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	0.729	0.713	0.733	0.660	0.702	0.758	0.663	0.744	0.791	1.000	0.941	0.801
	Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	0.808	0.806	0.817	0.653	0.714	0.769	0.671	0.714	0.732	0.941	1.000	0.730
	My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	0.657	0.674	0.673	0.646	0.727	0.726	0.689	0.696	0.730	0.801	0.730	1.000

a. Determinant = 1.364E-9

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.874
Bartlett's Test of Sphericity	Approx. Chi-Square	2942.900
	df	66
	Sig.	0.000

Communalities

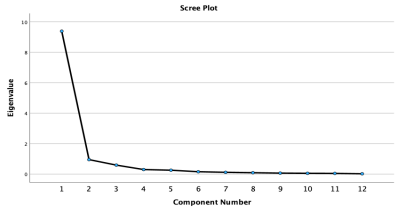
	Initial	Extraction
The capital of my company is higher compared to the other companies	1.000	0.779
The revenue of my company is higher compared to the other companies	1.000	0.755
The number of employees at my company is higher compared to the other companies	1.000	0.762
Top management in my company believes that introducing technologies is strategically important	1.000	0.726
Top management in my company is willing to invest in the introduction of technology	1.000	0.862
Top management in my company is willing to take responsibility for the process of introducing technology	1.000	0.888
Top management in my company encourages the updating of the company's technology to improve competitiveness	1.000	0.789
Top management in my company actively encourages the use of technology to gain competitive advantages	1.000	0.812
Top management in my company is willing to provide relevant training	1.000	0.807
Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	1.000	0.755
Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	1.000	0.775
My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	1.000	0.876

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.388	78.230	78.230	9.388	78.230	78.230
2	0.950	7.913	86.142			
3	0.587	4.893	91.035			
4	0.296	2.470	93.505			
5	0.253	2.110	95.615			
6	0.153	1.279	96.894			
7	0.114	0.947	97.841			
8	0.088	0.734	98.575			
9	0.061	0.512	99.086			
10	0.049	0.412	99.498			
11	0.043	0.356	99.855			
12	0.017	0.145	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component 1
The capital of my company is higher compared to the other companies	0.883
The revenue of my company is higher compared to the other companies	0.869
The number of employees at my company is higher compared to the other companies	0.873
Top management in my company believes that introducing technologies is strategically important	0.852
Top management in my company is willing to invest in the introduction of technology	0.929
Top management in my company is willing to take responsibility for the process of introducing technology	0.942
Top management in my company encourages the updating of the company's technology to improve competitiveness	0.888
Top management in my company actively encourages the use of technology to gain competitive advantages	0.901
Top management in my company is willing to provide relevant training	0.898

Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	0.869
Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	0.881
My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	0.822

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reproduced Correlations

		The capital of my company is higher compared to the other companies	The revenue of my company is higher compared to the other companies	The number of employees at my company is higher compared to the other companies	Top management in my company believes that introducing technologies is strategically important	Top management in my company is willing to invest in the introduction of technology	Top management in my company is willing to take responsibility for the process of introducing technology	Top management in my company encourages the updating of the company's technology to improve competitiveness	Top management in my company actively encourages the use of technology to gain competitive advantages	Top management in my company is willing to provide relevant training	Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)
Reproduced Correlation	The capital of my company is higher compared to the other companies	.779[a]	0.767	0.771	0.752	0.820	0.832	0.784	0.795	0.793	0.767	0.777	0.726
	The revenue of my company is higher compared to the other companies	0.767	.755[a]	0.758	0.740	0.807	0.818	0.772	0.783	0.780	0.755	0.765	0.714
	The number of employees at my company is higher compared to the other companies	0.771	0.758	.762[a]	0.744	0.811	0.823	0.776	0.787	0.784	0.759	0.769	0.718
	Top management in my company believes that introducing technologies is strategically important	0.752	0.740	0.744	.726[a]	0.792	0.803	0.757	0.768	0.766	0.741	0.751	0.701
	Top management in my company is willing to invest in the introduction of technology	0.820	0.807	0.811	0.792	.862[a]	0.875	0.825	0.837	0.834	0.807	0.818	0.764
	Top management in my company is willing to take responsibility for the process of introducing technology	0.832	0.818	0.823	0.803	0.875	.888[a]	0.837	0.849	0.847	0.819	0.830	0.775
	Top management in my company encourages the updating of the company's technology to improve competitiveness	0.784	0.772	0.776	0.757	0.825	0.837	.789[a]	0.800	0.798	0.772	0.782	0.730
	Top management in my company actively encourages the use of technology to gain competitive advantages	0.795	0.783	0.787	0.768	0.837	0.849	0.800	.812[a]	0.810	0.783	0.794	0.741
	Top management in my company is willing to provide relevant training	0.793	0.780	0.784	0.766	0.834	0.847	0.798	0.810	.807[a]	0.781	0.791	0.739
	Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	0.767	0.755	0.759	0.741	0.807	0.819	0.772	0.783	0.781	.755[a]	0.765	0.714
	Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	0.777	0.765	0.769	0.751	0.818	0.830	0.782	0.794	0.791	0.765	.775[a]	0.724
	My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	0.726	0.714	0.718	0.701	0.764	0.775	0.730	0.741	0.739	0.714	0.724	.676[a]
Residual[b]	The capital of my company is higher compared to the other companies		0.181	0.140	-0.059	-0.051	-0.032	-0.099	-0.103	-0.114	-0.039	0.030	-0.069
	The revenue of my company is higher compared to the other companies	0.181		0.161	-0.030	-0.078	-0.053	-0.130	-0.123	-0.120	-0.042	0.041	-0.040
	The number of employees at my company is higher compared to the other companies	0.140	0.161		-0.043	-0.065	-0.044	-0.106	-0.117	-0.130	-0.026	0.048	-0.045
	Top management in my company believes that introducing technologies is strategically important	-0.059	-0.030	-0.043		0.020	-0.004	0.070	0.008	-0.001	-0.080	-0.097	-0.054
	Top management in my company is willing to invest in the introduction of technology	-0.051	-0.078	-0.065	0.020		0.064	0.098	0.064	0.035	-0.105	-0.104	-0.037
	Top management in my company is willing to take responsibility for the process of introducing technology	-0.032	-0.053	-0.044	-0.004	0.064		0.033	0.028	0.049	-0.061	-0.061	-0.049
	Top management in my company encourages the updating of the company's technology to improve competitiveness	-0.099	-0.130	-0.106	0.070	0.098	0.033		0.118	0.048	-0.108	-0.111	-0.041
	Top management in my company actively encourages the use of technology to gain competitive advantages	-0.103	-0.123	-0.117	0.008	0.064	0.028	0.118		0.082	-0.039	-0.080	-0.045
	Top management in my company is willing to provide relevant training	-0.114	-0.120	-0.130	-0.001	0.035	0.049	0.048	0.082		0.011	-0.059	-0.009
	Supporting institutions (e.g., government, bank, etc.) provide financial assistance (loan, grant, etc.) for my company to adopt technologies	-0.039	-0.042	-0.026	-0.080	-0.105	-0.061	-0.108	-0.039	0.011		0.176	0.086
	Financial support (loan, grant, etc.) for my company on the adoption of technologies can be easily obtained from supporting institutions (e.g., government, bank, etc.)	0.030	0.041	0.048	-0.097	-0.104	-0.061	-0.111	-0.080	-0.059	0.176		0.006

	My company will take the adoption of technology more seriously if it receives adequate financial support (loan, grant, etc.) from supporting institutions (e.g., government, bank, etc.)	-0.069	-0.040	-0.045	-0.054	-0.037	-0.049	-0.041	-0.045	-0.009	0.086	0.006	

Extraction Method: Principal Component Analysis.
a. Reproduced communalities
b. Residuals are computed between observed and reproduced correlations. There are 37 (56.0%) nonredundant residuals with absolute values greater than 0.05.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis for Environmental Factors

Notes

Output Created		12-APR-2024 18:02:15
Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES CPP1 CPP2 CPP3 CPP4 CPP5 CS1 CS2 CS3 CS4 GS1 GS2 GS3 GS4 GS5 /MISSING LISTWISE /ANALYSIS CPP1 CPP2 CPP3 CPP4 CPP5 CS1 CS2 CS3 CS4 GS1 GS2 GS3 GS4 GS5 /PRINT INITIAL CORRELATION DET KMO REPR EXTRACTION ROTATION /FORMAT BLANK(0.50) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.19
	Elapsed Time	00:00:00.00
	Maximum Memory Required	25128 (24.539K) bytes

Correlation Matrix[a]

		The adoption of technology for my company is due to pressure within the industry to upgrade technology	The adoption technology for my company is to improve competitiveness in the industry	Adopting technology for my company is an important strategy to compete in the current market	If technologies are not introduced in my company, customers may choose competitors' products	If technologies are not introduced, my company may suffer competitive disadvantages	Many customers for my company are keen that we should adopt the usage of technology	My company relationship with customers would have suffered if we did not adopt the usage of technology	Customers may consider my company as backward if we do not adopt the usage of technology	Majority customers demand that my company establish strong relationships with them by adopting technology	The government provides sufficient motivational programs for technology adoption	The government provides varieties of grants for technology adoption	The government offers subsidies for technology adoption	The government is adequately driving the use of technology by providing incentives for its adoption	The government demonstrates a strong commitment to promote technology adoption
Correlation	The adoption of technology for my company is due to pressure within the industry to upgrade technology	1.000	0.804	0.696	0.769	0.740	0.702	0.678	0.728	0.779	0.659	0.679	0.703	0.658	0.687
	The adoption technology for my company is to improve competitiveness in the industry	0.804	1.000	0.838	0.761	0.778	0.777	0.714	0.802	0.808	0.693	0.723	0.737	0.698	0.715
	Adopting technology for my company is an important strategy to compete in the current market	0.696	0.838	1.000	0.849	0.730	0.816	0.784	0.816	0.838	0.771	0.794	0.780	0.779	0.775
	If technologies are not introduced in my company, customers may choose competitors' products	0.769	0.761	0.849	1.000	0.811	0.856	0.831	0.876	0.900	0.844	0.848	0.827	0.805	0.857
	If technologies are not introduced, my company may suffer competitive disadvantages	0.740	0.778	0.730	0.811	1.000	0.784	0.832	0.779	0.824	0.716	0.764	0.772	0.787	0.765
	Many customers for my company are keen that we should adopt the usage of technology	0.702	0.777	0.816	0.856	0.784	1.000	0.889	0.825	0.872	0.842	0.886	0.847	0.853	0.819
	My company relationship with customers would have suffered if we did not adopt the usage of technology	0.678	0.714	0.784	0.831	0.832	0.889	1.000	0.836	0.844	0.766	0.833	0.790	0.818	0.791
	Customers may consider my company as backward if we do not adopt the usage of technology	0.728	0.802	0.816	0.876	0.779	0.825	0.836	1.000	0.886	0.815	0.842	0.805	0.800	0.843
	Majority customers demand that my company establish strong relationships with them by adopting technology	0.779	0.808	0.838	0.900	0.824	0.872	0.844	0.886	1.000	0.884	0.886	0.890	0.870	0.903
	The government provides sufficient motivational programs for technology adoption	0.659	0.693	0.771	0.844	0.716	0.842	0.766	0.815	0.884	1.000	0.965	0.912	0.910	0.947
	The government provides varieties of grants for technology adoption	0.679	0.723	0.794	0.848	0.764	0.886	0.833	0.842	0.886	0.965	1.000	0.958	0.955	0.955
	The government offers subsidies for technology adoption	0.703	0.737	0.780	0.827	0.772	0.847	0.790	0.805	0.890	0.912	0.958	1.000	0.970	0.947
	The government is adequately driving the use of technology by providing incentives for its adoption	0.658	0.698	0.779	0.805	0.787	0.853	0.818	0.800	0.870	0.910	0.955	0.970	1.000	0.948
	The government demonstrates a strong commitment to promote technology adoption	0.687	0.715	0.775	0.857	0.765	0.819	0.791	0.843	0.903	0.947	0.955	0.947	0.948	1.000

a. Determinant = 2.092E-12

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.901
Bartlett's Test of Sphericity	Approx. Chi-Square	3859.131

	df	91
	Sig.	0.000

Communalities

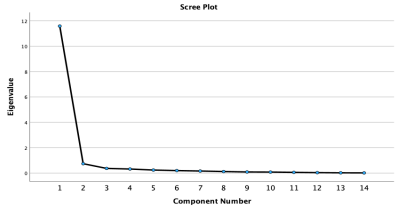
	Initial	Extraction
The adoption of technology for my company is due to pressure within the industry to upgrade technology	1.000	0.645
The adoption technology for my company is to improve competitiveness in the industry	1.000	0.720
Adopting technology for my company is an important strategy to compete in the current market	1.000	0.782
If technologies are not introduced in my company, customers may choose competitors' products	1.000	0.865
If technologies are not introduced, my company may suffer competitive disadvantages	1.000	0.755
Many customers for my company are keen that we should adopt the usage of technology	1.000	0.856
My company relationship with customers would have suffered if we did not adopt the usage of technology	1.000	0.803
Customers may consider my company as backward if we do not adopt the usage of technology	1.000	0.838
Majority customers demand that my company establish strong relationships with them by adopting technology	1.000	0.917
The government provides sufficient motivational programs for technology adoption	1.000	0.854
The government provides varieties of grants for technology adoption	1.000	0.907
The government offers subsidies for technology adoption	1.000	0.884
The government is adequately driving the use of technology by providing incentives for its adoption	1.000	0.872
The government demonstrates a strong commitment to promote technology adoption	1.000	0.887

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.587	82.764	82.764	11.587	82.764	82.764
2	0.738	5.272	88.036			
3	0.366	2.616	90.652			
4	0.318	2.273	92.925			
5	0.237	1.696	94.621			
6	0.194	1.388	96.009			
7	0.160	1.141	97.150			
8	0.119	0.851	98.002			
9	0.086	0.612	98.613			
10	0.078	0.554	99.168			
11	0.055	0.390	99.558			
12	0.033	0.235	99.793			
13	0.018	0.126	99.919			
14	0.011	0.081	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component 1
The adoption of technology for my company is due to pressure within the industry to upgrade technology	0.803
The adoption technology for my company is to improve competitiveness in the industry	0.849
Adopting technology for my company is an important strategy to compete in the current market	0.884
If technologies are not introduced in my company, customers may choose competitors' products	0.930
If technologies are not introduced, my company may suffer competitive disadvantages	0.869
Many customers for my company are keen that we should adopt the usage of technology	0.925
My company relationship with customers would have suffered if we did not adopt the usage of technology	0.896
Customers may consider my company as backward if we do not adopt the usage of technology	0.916
Majority customers demand that my company establish strong relationships with them by adopting technology	0.958

The government provides sufficient motivational programs for technology adoption	0.924
The government provides varieties of grants for technology adoption	0.953
The government offers subsidies for technology adoption	0.940
The government is adequately driving the use of technology by providing incentives for its adoption	0.934
The government demonstrates a strong commitment to promote technology adoption	0.942

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reproduced Correlations

		The adoption of technology for my company is due to pressure within the industry to upgrade technology	The adoption technology for my company is to improve competitiveness in the industry	Adopting technology for my company is an important strategy to compete in the current market	If technologies are not introduced in my company, customers may choose competitors' products	If technologies are not introduced, my company may suffer competitive disadvantages	Many customers for my company are keen that we should adopt the usage of technology	My company relationship with customers would have suffered if we did not adopt the usage of technology	Customers may consider my company as backward if we do not adopt the usage of technology	Majority customers demand that my company establish strong relationships with them by adopting technology	The government provides sufficient motivational programs for technology adoption	The government provides varieties of grants for technology adoption	The government offers subsidies for technology adoption	The government is adequately driving the use of technology by providing incentives for its adoption	The government demonstrates a strong commitment to promote technology adoption
Reproduced Correlation	The adoption of technology for my company is due to pressure within the industry to upgrade technology	.645[a]	0.682	0.710	0.747	0.698	0.743	0.720	0.735	0.769	0.742	0.765	0.755	0.750	0.757
	The adoption technology for my company is to improve competitiveness in the industry	0.682	.720[a]	0.750	0.789	0.737	0.785	0.761	0.777	0.813	0.784	0.808	0.798	0.792	0.799
	Adopting technology for my company is an important strategy to compete in the current market	0.710	0.750	.782[a]	0.822	0.768	0.818	0.793	0.810	0.847	0.817	0.842	0.832	0.826	0.833
	If technologies are not introduced in my company, customers may choose competitors' products	0.747	0.789	0.822	.865[a]	0.808	0.861	0.833	0.852	0.891	0.859	0.886	0.874	0.868	0.876
	If technologies are not introduced, my company may suffer competitive disadvantages	0.698	0.737	0.768	0.808	.755[a]	0.804	0.779	0.796	0.832	0.803	0.828	0.817	0.811	0.818
	Many customers for my company are keen that we should adopt the usage of technology	0.743	0.785	0.818	0.861	0.804	.856[a]	0.829	0.847	0.886	0.855	0.881	0.870	0.864	0.872
	My company relationship with customers would have suffered if we did not adopt the usage of technology	0.720	0.761	0.793	0.833	0.779	0.829	.803[a]	0.821	0.858	0.828	0.854	0.843	0.837	0.844
	Customers may consider my company as backward if we do not adopt the usage of technology	0.735	0.777	0.810	0.852	0.796	0.847	0.821	.838[a]	0.877	0.846	0.872	0.861	0.855	0.862
	Majority customers demand that my company establish strong relationships with them by adopting technology	0.769	0.813	0.847	0.891	0.832	0.886	0.858	0.877	.917[a]	0.885	0.912	0.901	0.894	0.902
	The government provides sufficient motivational programs for technology adoption	0.742	0.784	0.817	0.859	0.803	0.855	0.828	0.846	0.885	.854[a]	0.880	0.869	0.863	0.870
	The government provides varieties of grants for technology adoption	0.765	0.808	0.842	0.886	0.828	0.881	0.854	0.872	0.912	0.880	.907[a]	0.896	0.890	0.897
	The government offers subsidies for technology adoption	0.755	0.798	0.832	0.874	0.817	0.870	0.843	0.861	0.901	0.869	0.896	.884[a]	0.878	0.886
	The government is adequately driving the use of technology by providing incentives for its adoption	0.750	0.792	0.826	0.868	0.811	0.864	0.837	0.855	0.894	0.863	0.890	0.878	.872[a]	0.880
	The government demonstrates a strong commitment to promote technology adoption	0.757	0.799	0.833	0.876	0.818	0.872	0.844	0.862	0.902	0.870	0.897	0.886	0.880	.887[a]
Residual[b]	The adoption of technology for my company is due to pressure within the industry to upgrade technology		0.123	-0.014	0.022	0.043	-0.042	-0.042	-0.008	0.009	-0.083	-0.086	-0.052	-0.092	-0.069
	The adoption technology for my company is to improve competitiveness in the industry	0.123		0.087	-0.028	0.040	-0.008	-0.047	0.025	-0.005	-0.091	-0.086	-0.061	-0.095	-0.085
	Adopting technology for my company is an important strategy to compete in the current market	-0.014	0.087		0.027	-0.038	-0.002	-0.008	0.006	-0.009	-0.046	-0.048	-0.052	-0.047	-0.057
	If technologies are not introduced in my company, customers may choose competitors' products	0.022	-0.028	0.027		0.003	-0.004	-0.002	0.025	0.009	-0.016	-0.038	-0.048	-0.063	-0.019
	If technologies are not introduced, my company may suffer competitive disadvantages	0.043	0.040	-0.038	0.003		-0.020	0.053	-0.016	-0.009	-0.087	-0.063	-0.045	-0.025	-0.053
	Many customers for my company are keen that we should adopt the usage of technology	-0.042	-0.008	-0.002	-0.004	-0.020		0.060	-0.022	-0.015	-0.013	0.004	-0.023	-0.011	-0.052
	My company relationship with customers would have suffered if we did not adopt the usage of technology	-0.042	-0.047	-0.008	-0.002	0.053	0.060		0.015	-0.014	-0.063	-0.021	-0.053	-0.019	-0.053
	Customers may consider my company as backward if we do not adopt the usage of technology	-0.008	0.025	0.006	0.025	-0.016	-0.022	0.015		0.009	-0.031	-0.030	-0.056	-0.055	-0.019
	Majority customers demand that my company establish strong relationships with them by adopting technology	0.009	-0.005	-0.009	0.009	-0.009	-0.015	-0.014	0.009		-0.001	-0.026	-0.011	-0.024	0.001
	The government provides sufficient motivational programs for technology adoption	-0.083	-0.091	-0.046	-0.016	-0.087	-0.013	-0.063	-0.031	-0.001		0.084	0.043	0.047	0.077
	The government provides varieties of grants for technology adoption	-0.086	-0.086	-0.048	-0.038	-0.063	0.004	-0.021	-0.030	-0.026	0.084		0.062	0.066	0.058
	The government offers subsidies for technology adoption	-0.052	-0.061	-0.052	-0.048	-0.045	-0.023	-0.053	-0.056	-0.011	0.043	0.062		0.092	0.061
	The government is adequately driving the use of technology by providing incentives for its adoption	-0.092	-0.095	-0.047	-0.063	-0.025	-0.011	-0.019	-0.055	-0.024	0.047	0.066	0.092		0.069
	The government demonstrates a strong commitment to promote technology adoption	-0.069	-0.085	-0.057	-0.019	-0.053	-0.052	-0.053	-0.019	0.001	0.077	0.058	0.061	0.069	

Extraction Method: Principal Component Analysis.
a. Reproduced communalities
b. Residuals are computed between observed and reproduced correlations. There are 34 (37.0%) nonredundant residuals with absolute values greater than 0.05.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis for Financial Performance

Notes

Output Created		12-APR-2024 18:02:31
Comments		
Input	Data	/Users/elyn/Library/CloudStorage/OneDrive-Personal/UNIMAS/Sem8_Feb2023/5 Questionnaire/SPSS Data Running 1.sav
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	Weight	<none>
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	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES FP1 FP2 FP3 FP4 /MISSING LISTWISE /ANALYSIS FP1 FP2 FP3 FP4 /PRINT INITIAL CORRELATION DET KMO REPR EXTRACTION ROTATION /FORMAT BLANK(0.50) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.14
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Correlation Matrix[a]

		My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	My company's financial performance measured by sales (e.g., revenue)	My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)
Correlation	My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	1.000	0.924	0.789	0.871
	My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	0.924	1.000	0.750	0.825
	My company's financial performance measured by sales (e.g., revenue)	0.789	0.750	1.000	0.802
	My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	0.871	0.825	0.802	1.000

a. Determinant = .011

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.829
Bartlett's Test of Sphericity	Approx. Chi-Square	659.552
	df	6
	Sig.	0.000

Communalities

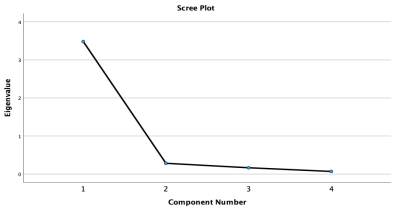
	Initial	Extraction
My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	1.000	0.925
My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	1.000	0.882
My company's financial performance measured by sales (e.g., revenue)	1.000	0.796
My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	1.000	0.879

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.483	87.076	87.076	3.483	87.076	87.076
2	0.283	7.069	94.145			
3	0.165	4.137	98.282			
4	0.069	1.718	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component 1
My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	0.962
My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	0.939
My company's financial performance measured by sales (e.g., revenue)	0.892
My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	0.938

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reproduced Correlations

		My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	My company's financial performance measured by sales (e.g., revenue)	My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)
Reproduced Correlation	My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)	.925[a]	0.904	0.858	0.902
	My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	0.904	.882[a]	0.838	0.881
	My company's financial performance measured by sales (e.g., revenue)	0.858	0.838	.796[a]	0.837
	My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	0.902	0.881	0.837	.879[a]
Residual[b]	My company's financial performance measured by profit (e.g., the total revenue a business earns minus the total expenses)		0.021	-0.070	-0.031
	My company's financial performance measured by operating profit (e.g., gross profit minus the operating cost, including selling and administrative expenses)	0.021		-0.088	-0.056
	My company's financial performance measured by sales (e.g., revenue)	-0.070	-0.088		-0.035
	My company's financial performance measured by cash flow (e.g., net flows of cash that are used to fund the company)	-0.031	-0.056	-0.035	

Extraction Method: Principal Component Analysis.
a. Reproduced communalities
b. Residuals are computed between observed and reproduced correlations. There are 3 (50.0%) nonredundant residuals with absolute values greater than 0.05.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis for Non-financial Performance

Notes

Output Created		12-APR-2024 18:02:49
Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	150
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.

Syntax		FACTOR /VARIABLES NFP1 NFP2 NFP3 NFP4 NFP5 NFP6 /MISSING LISTWISE /ANALYSIS NFP1 NFP2 NFP3 NFP4 NFP5 NFP6 /PRINT INITIAL CORRELATION DET KMO REPR EXTRACTION ROTATION /FORMAT BLANK(0.50) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
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Correlation Matrix[a]

		My company's non-financial performance measured by employee conditions on their skill and efficiency	My company's non-financial performance measured by employee conditions on their commitment and satisfaction	My company's non-financial performance measured by valued customers increased number of new customers	My company's non-financial performance measured by valued customers increased number of regular or loyal customers	My company's non-financial performance measured by product or service development on a larger number of products or services	My company's non-financial performance measured by product or service development and an increase in good-quality products or services
Correlation	My company's non-financial performance measured by employee conditions on their skill and efficiency	1.000	0.909	0.836	0.789	0.876	0.819
	My company's non-financial performance measured by employee conditions on their commitment and satisfaction	0.909	1.000	0.877	0.797	0.874	0.859
	My company's non-financial performance measured by valued customers increased number of new customers	0.836	0.877	1.000	0.918	0.872	0.837
	My company's non-financial performance measured by valued customers increased number of regular or loyal customers	0.789	0.797	0.918	1.000	0.872	0.872
	My company's non-financial performance measured by product or service development on a larger number of products or services	0.876	0.874	0.872	0.872	1.000	0.883
	My company's non-financial performance measured by product or service development and an increase in good-quality products or services	0.819	0.859	0.837	0.872	0.883	1.000

a. Determinant = .000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.862
Bartlett's Test of Sphericity	Approx. Chi-Square	1323.541
	df	15
	Sig.	0.000

Communalities

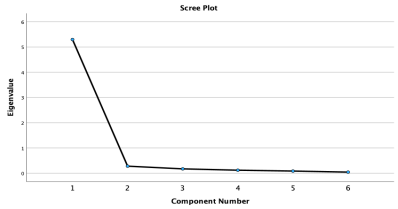
	Initial	Extraction
My company's non-financial performance measured by employee conditions on their skill and efficiency	1.000	0.860
My company's non-financial performance measured by employee conditions on their commitment and satisfaction	1.000	0.889
My company's non-financial performance measured by valued customers increased number of new customers	1.000	0.897
My company's non-financial performance measured by valued customers increased number of regular or loyal customers	1.000	0.866
My company's non-financial performance measured by product or service development on a larger number of products or services	1.000	0.910
My company's non-financial performance measured by product or service development and an increase in good-quality products or services	1.000	0.874

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.297	88.279	88.279	5.297	88.279	88.279
2	0.280	4.666	92.945			
3	0.173	2.880	95.826			
4	0.120	2.001	97.827			
5	0.087	1.442	99.269			
6	0.044	0.731	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1

My company's non-financial performance measured by employee conditions on their skill and efficiency	0.927
My company's non-financial performance measured by employee conditions on their commitment and satisfaction	0.943
My company's non-financial performance measured by valued customers increased number of new customers	0.947
My company's non-financial performance measured by valued customers increased number of regular or loyal customers	0.931
My company's non-financial performance measured by product or service development on a larger number of products or services	0.954
My company's non-financial performance measured by product or service development and an increase in good-quality products or services	0.935

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reproduced Correlations

		My company's non-financial performance measured by employee conditions on their skill and efficiency	My company's non-financial performance measured by employee conditions on their commitment and satisfaction	My company's non-financial performance measured by valued customers increased number of new customers	My company's non-financial performance measured by valued customers increased number of regular or loyal customers	My company's non-financial performance measured by product or service development on a larger number of products or services	My company's non-financial performance measured by product or service development and an increase in good-quality products or services
Reproduced Correlation	My company's non-financial performance measured by employee conditions on their skill and efficiency	.860[a]	0.874	0.878	0.863	0.885	0.867
	My company's non-financial performance measured by employee conditions on their commitment and satisfaction	0.874	.889[a]	0.893	0.878	0.900	0.881
	My company's non-financial performance measured by valued customers increased number of new customers	0.878	0.893	.897[a]	0.882	0.904	0.885
	My company's non-financial performance measured by valued customers increased number of regular or loyal customers	0.863	0.878	0.882	.866[a]	0.888	0.870
	My company's non-financial performance measured by product or service development on a larger number of products or services	0.885	0.900	0.904	0.888	.910[a]	0.892
	My company's non-financial performance measured by product or service development and an increase in good-quality products or services	0.867	0.881	0.885	0.870	0.892	.874[a]
Residual[b]	My company's non-financial performance measured by employee conditions on their skill and efficiency		0.035	-0.043	-0.074	-0.008	-0.048
	My company's non-financial performance measured by employee conditions on their commitment and satisfaction	0.035		-0.017	-0.080	-0.026	-0.022
	My company's non-financial performance measured by valued customers increased number of new customers	-0.043	-0.017		0.036	-0.032	-0.048
	My company's non-financial performance measured by valued customers increased number of regular or loyal customers	-0.074	-0.080	0.036		-0.016	0.002
	My company's non-financial performance measured by product or service development on a larger number of products or services	-0.008	-0.026	-0.032	-0.016		-0.009
	My company's non-financial performance measured by product or service development and an increase in good-quality products or services	-0.048	-0.022	-0.048	0.002	-0.009	

Extraction Method: Principal Component Analysis.
a. Reproduced communalities
b. Residuals are computed between observed and reproduced correlations. There are 2 (13.0%) nonredundant residuals with absolute values greater than 0.05.

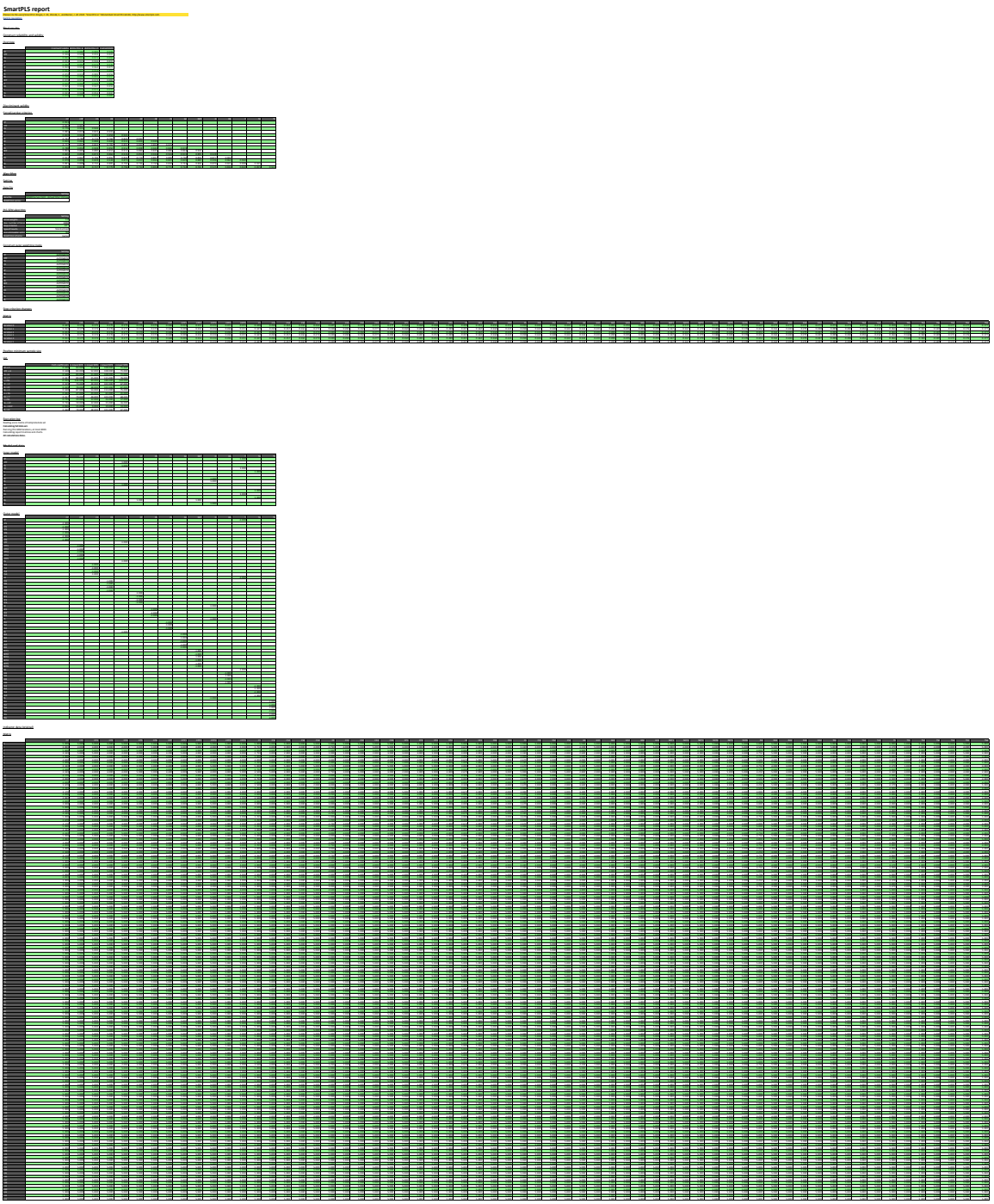
Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

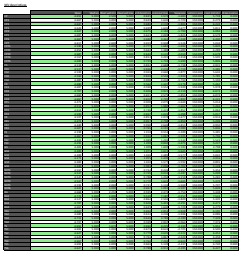
Appendix H:

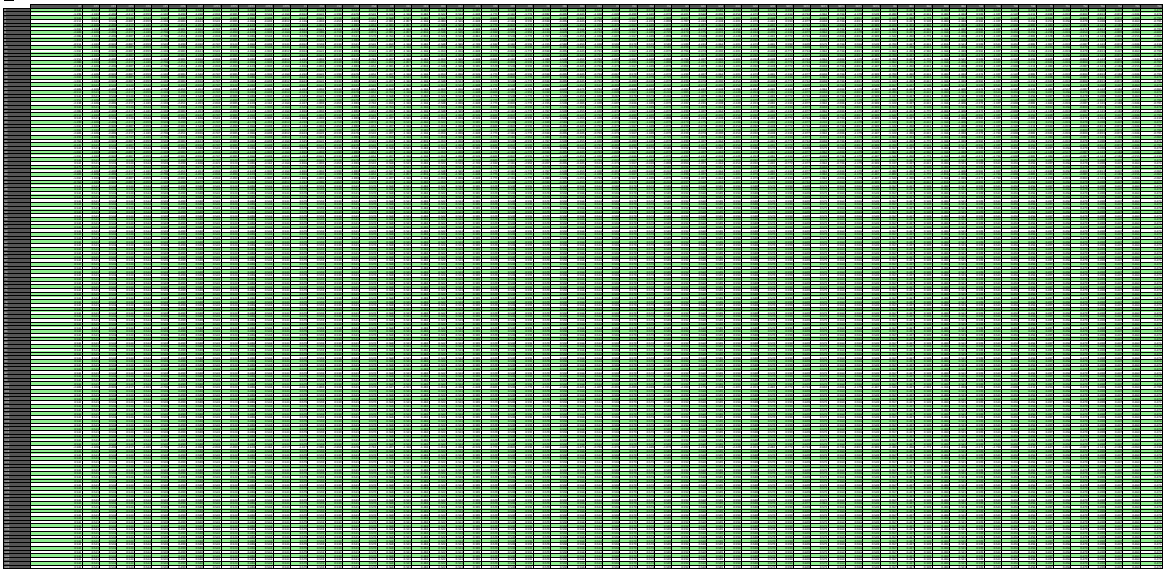
PLS-SEM Algorithm's Factor Analysis for Reflective Measurement from SmartPLS 4.1

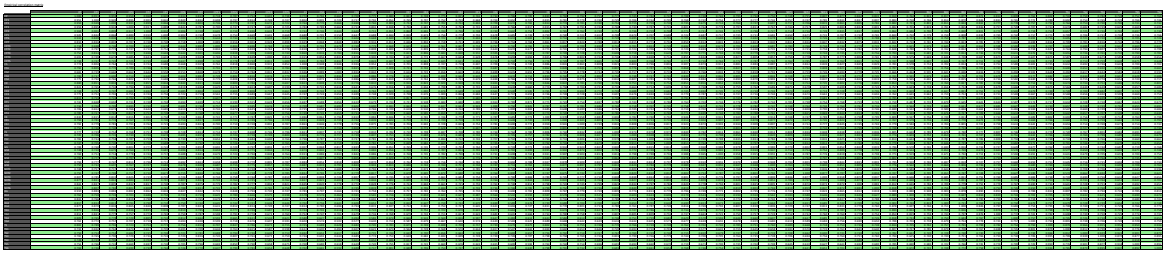
i. First-Order Model

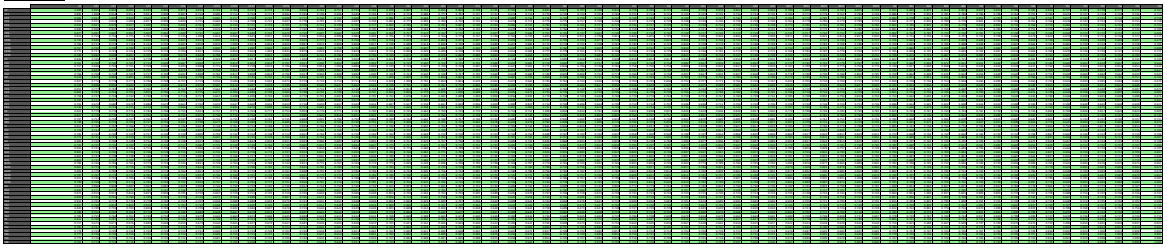


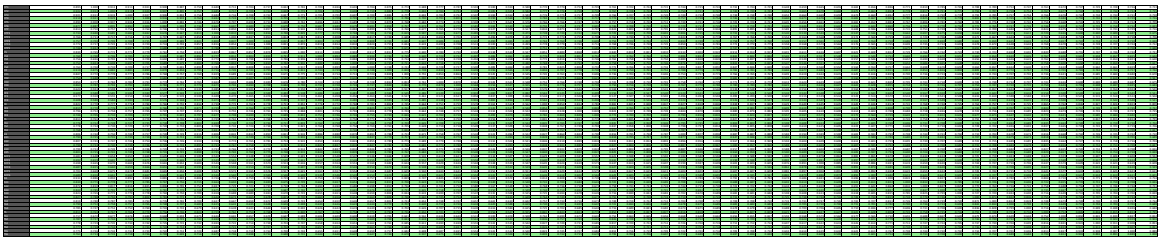


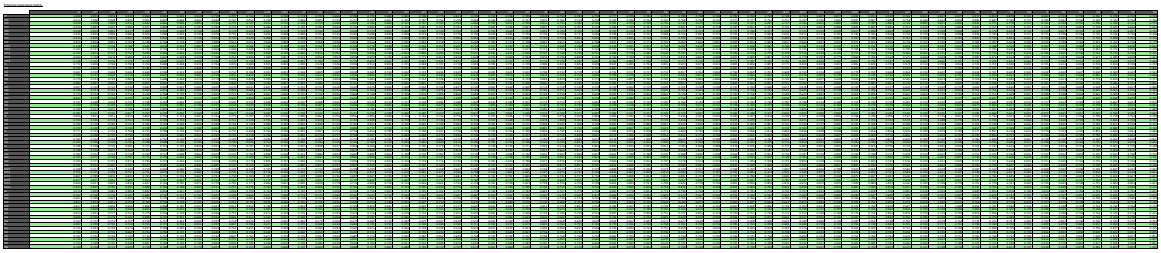












ii. Second-Order Model

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

back to navigation

Final results

Construct reliability and validity

Overview

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
EP	0.931	0.931	0.957	0.917
NFP	0.973	0.973	0.979	0.922
TA	0.973	0.973	0.983	0.966
TOE	0.977	0.977	0.985	0.955

Discriminant validity

Fornell-Larcker criterion

	EP	NFP	TA	TOE
EP	0.941			
NFP	0.883	0.960		
TA	0.736	0.834	0.951	
TOE	0.858	0.926	0.891	0.919

Algorithm

Setting

Data file

	Setting
Data file	Sim - Actual Filter 150 pas
Weighting vector	

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^{-7}
Type of results	Standardized
Use Lohmoeller settings?	No
Weighting scheme	Factor

Construct outer weighting mode

	Setting
EP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TOE	AUTOMATIC

Stop criterion changes

Matrix

	CP	CPF	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
Iteration 0	0.121	0.121	0.121	0.121	0.268	0.268	0.268	0.268	0.121	0.121	0.121	0.177	0.177	0.177	0.177	0.177	0.177	0.121	0.273	0.273	0.273	0.273	0.121
Iteration 1	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.116	0.289	0.286	0.260	0.258	0.127
Iteration 2	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.116	0.289	0.286	0.260	0.258	0.127
Iteration 3	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.116	0.289	0.286	0.260	0.258	0.127
Iteration 4	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.116	0.289	0.286	0.260	0.258	0.127
Iteration 5	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.116	0.289	0.286	0.260	0.258	0.127

Posthoc minimum sample size

list

	Path coefficient	% power 80%	% power 85%	% power 90%	% power 95%
TA -> EP	0.736	10.000	12.000	15.000	16.000
TA -> NFP	0.834	15.000	9.000	19.000	13.000
TOE -> TA	0.891	13.000	8.000	17.000	11.000

Execution log

Reading score matrix of complete data set
Calculating full data set.
Running PLS-SEM iterations, at most 3000.
Calculating report matrices and charts.
All calculations done.

Model and data

Inner model

	EP	NFP	TA	TOE
EP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Outer model

	EP	NFP	TA	TOE
CP				-1.000
CPF				-1.000
CS				-1.000
CX				-1.000
FP1	1.000			
FP2	1.000			
FP3	1.000			
FP4	1.000			
FR				1.000
FS				1.000
GS				1.000
NFP1		1.000		
NFP2		1.000		
NFP3		1.000		
NFP4		1.000		
NFP5		1.000		
NFP6		1.000		
RA				1.000
TA1			1.000	
TA2			1.000	
TA3			1.000	
TA4			1.000	
TS				1.000

Indicator data (original)

Matrix

Case index	CP	CPF	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
1	5.000	6.000	6.000	5.000	5.000	5.000	6.000	6.000	5.000	5.000	5.000	6.000	5.000	5.000	5.000	6.000	5.000	5.000	6.000	5.000	6.000	6.000	5.000
2	4.840	4.500	4.750	4.750	3.000	2.000	3.000	3.000	3.670	3.330	4.200	4.000	4.000	3.000	4.000	4.000	5.000	4.500	5.000	4.000	4.000	4.000	4.170
3	5.000	4.500	4.250	5.500	3.000	4.000	4.000	4.000	4.000	3.000	4.600	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	4.000	4.000	4.000	4.500
4	4.330	4.200	2.750	4.000	3.000	4.000	3.000	5.000	4.000	2.330	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.670	2.670	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.830
6	5.000	4.000	5.250	5.000	1.000	2.000	2.000	2.000	4.000	2.330	1.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	3.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	3.000	2.670	3.400	4.000	4.000	4.000	3.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	3.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.330	2.670	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.330
9	4.330	4.400	4.500	3.750	2.000	2.000	4.000	2.670	5.000	2.800	5.000	5.000	5.000	4.000	5.000	5.000	5.000	4.250	5.000	5.000	5.000	5.000	3.330
10	4.170	4.400	4.250	4.000	5.000	5.000	5.000	4.000	4.330	5.000	4.600	5.000	5.000	5.000	5.000	5.000	4.000	4.500	4.000	4.000	5.000	5.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.000	2.670	3.600	4.000	4.000	3.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	4.000	4.500
12	4.000	3.800	4.000	4.000	2.000	4.000	3.000	4.000	4.000	2.330	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	3.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	4.000	3.000	3.330	2.670	3.600	4.000	4.000	3.000	4.000	4.000	4.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	5.000	4.000	5.000	3.000	3.000	3.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	5.000	4.000	4.000	4.000
15	3.170	4.000	3.000	3.000	5.000	5.000	5.000	5.000	3.670	3.000	3.400	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	3.000
16	6.000	4.000	4.000	4.250	4.000	6.000	4.000	4.000	4.000	2.670	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	4.000	4.330	3.000	3.000	4.000	3.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.330	1.000	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	5.000	5.000	3.000	4.000	3.670	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.500	4.000	4.000	4.000	4.000	4.500
20	5.000	4.400	4.500	4.500	3.000	3.000	5.000	4.000	3.670	4.000	4.000	4.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	4.000	3.500	3.750	3.000	4.000	5.000	4.000	2.000	1.670	2.000	3.000	3.000	3.000	3.000	4.000	3.000	3.250	3.000	4.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.670	3.330	2.600	4.000	4.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	4.400	4.250	5.000	4.000	3.000	3.000	3.000	3.330	4.670	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.670	4.000	3.250	3.750	3.000	3.000	4.000	3.000	2.670	2.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	3.000	3.500
25	5.000	4.200	4.250	4.250	4.000	4.000	4.000	4.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.500
26	5.000	4.200	4.250	4.250	4.000	4.000	4.000	4.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.500
27	3.330	4.000	3.000	3.500	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	3.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	3.000	2.000	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000

30	3.830	3.000	1.000	4.250	5.000	5.000	5.000	4.000	2.000	3.000	1.000	3.000	3.000	2.000	2.000	3.000	3.000	4.000	4.000	4.000	5.000	4.000	4.830
31	4.000	3.600	2.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
32	4.000	4.400	3.250	3.750	3.000	3.000	4.000	4.000	2.670	1.670	1.000	4.000	4.000	3.000	3.000	4.000	4.000	3.750	4.000	3.000	3.000	4.000	4.000
33	3.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000
34	2.500	3.400	3.250	3.750	3.000	3.000	3.000	2.000	3.330	1.670	3.000	3.000	3.000	2.000	2.000	3.000	3.000	2.250	2.000	4.000	2.000	3.000	3.000
35	4.170	4.200	3.250	3.750	4.000	4.000	5.000	4.000	3.000	3.330	3.000	4.000	4.000	4.000	4.000	4.000	5.000	3.750	4.000	4.000	5.000	5.000	4.830
36	4.500	4.000	4.000	4.500	4.000	4.000	4.000	4.000	4.000	4.000	3.400	4.000	4.000	4.000	4.000	4.000	4.000	4.250	4.000	4.000	5.000	5.000	4.000
37	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
38	4.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.500	4.000	4.000	4.000	4.000	3.170
39	4.000	4.000	3.500	4.000	4.000	4.000	4.000	4.000	3.000	2.330	2.000	3.000	3.000	4.000	4.000	3.000	3.000	3.750	3.000	3.000	3.000	3.000	3.000
40	5.000	4.600	4.000	4.000	4.000	4.000	4.000	4.000	3.670	2.330	3.400	4.000	4.000	5.000	5.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000
41	5.000	3.400	3.000	5.000	2.000	2.000	3.000	2.000	4.330	3.000	3.400	4.000	3.000	3.000	4.000	3.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
42	4.830	4.800	4.750	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
43	3.000	3.000	3.000	3.250	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	4.000	4.000	5.000	4.000	4.170
44	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
45	4.000	3.200	3.000	4.000	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	3.000	3.000	4.000	4.000	3.670
46	4.170	4.800	3.500	4.500	3.000	3.000	5.000	3.000	4.000	4.330	3.800	5.000	4.000	5.000	5.000	5.000	4.000	4.250	4.000	4.000	5.000	5.000	5.000
47	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
48	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
49	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
50	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
51	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
52	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
53	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
54	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
55	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
56	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
57	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
58	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
59	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
61	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
62	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
63	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
64	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
65	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
66	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
67	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
68	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
69	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
70	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
71	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
72	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
73	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
74	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
75	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
76	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
77	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
78	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
79	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
80	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
81	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
82	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
83	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
84	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
85	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
86	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
87	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
88	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
89	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
90	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
91	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
92	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
93	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
94	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
95	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
96	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
97	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
98	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
99	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
100	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
101	3.000	5.000	4.500	3.250	3.000	4.000	5.000	3.000	2.670	4.000	2.200	4.000	4.000	4.000	3.000	3.000	3.000	3.750	5.000	5.000	3.000	4.000	4.830
102	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
103	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
104	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
105	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
106	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
107	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
108	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
109	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
110	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
111	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
112	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
113	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
114	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
115	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
116	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
117	3.000	2.600	2.500	4.000	4.000	3.000	4.000	4.000	2.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	3.250	3.000	3.000	3.000	4.000	2.830
118	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
119	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
120	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
121	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
122	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
123	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
124	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
125	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
126	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
127	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
128	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
129	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
130	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
131	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
132	5.000	5.000	5.000	5.000	3.000	5.000	5.000	3.000	5.000	5.000	5.000	3.000	3.000	3.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
133	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
134	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
135	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
136	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
137	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
138	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
139	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
140	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
141	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
142	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
143	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
144	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
145	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
146	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
147	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
148	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
149	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

MV descriptives

	Mean	Median	Observed min	Observed max	lard deviation	xcess kurtosis	Skewness	ervations used	s test statistic	Mises p value
CP	4.655	5.000	2.500	5.000	0.635	1.573	-1.683	150.000	5.718	0.000
CPP	4.617	5.000	2.600	5.000	0.659	0.948	-1.526	150.000	5.034	0.000
CS	4.518	5.000	1.000	5.000	0.832	2.688	-1.738	150.000	4.915	0.000
CX	4.680	5.000	3.000	5.000	0.564	1.347	-1.579	150.000	5.462	0.000
FP1	4.473	5.000	1.000	5.000	0.900	2.075	-1.640	150.000	5.014	0.000
FP2	4.513	5.000	1.000	5.000	0.854	1.980	-1.662	150.000	5.264	0.000
FP3	4.613	5.000	2.000	5.000	0.746	2.419	-1.852	150.000	6.063	0.000
FP4	4.500	5.000	2.000	5.000	0.847	1.024	-1.498	150.000	5.017	0.000
FR	4.507	5.000	1.000	5.000	0.853	2.078	-1.677	150.000	4.914	0.000
FS	4.398	5.000	1.000	5.000	1.018	0.553	-1.389	150.000	5.385	0.000
GS	4.403	5.000	1.000	5.000	1.009	1.609	-1.583	150.000	4.798	0.000
NFP1	4.567	5.000	3.000	5.000	0.734	0.226	-1.357	150.000	5.353	0.000
NFP2	4.547	5.000	3.000	5.000	0.745	0.033	-1.287	150.000	5.099	0.000
NFP3	4.547	5.000	2.000	5.000	0.788	1.250	-1.559	150.000	5.265	0.000
NFP4	4.567	5.000	2.000	5.000	0.770	1.631	-1.645	150.000	5.370	0.000
NFP5	4.593	5.000	2.000	5.000	0.731	1.116	-1.569	150.000	5.707	0.000
NFP6	4.633	5.000	3.000	5.000	0.667	1.091	-1.587	150.000	5.849	0.000
RA	4.668	5.000	2.250	5.000	0.595	2.372	-1.753	150.000	5.348	0.000
TA1	4.647	5.000	2.000	5.000	0.694	2.853	-1.928	150.000	6.195	0.000
TA2	4.680	5.000	2.000	5.000	0.614	3.236	-1.936	150.000	6.086	0.000
TA3	4.713	5.000	2.000	5.000	0.636	3.789	-2.180	150.000	7.329	0.000
TA4	4.727	5.000	3.000	5.000	0.599	2.947	-2.064	150.000	7.374	0.000
TS	4.655	5.000	1.670	5.000	0.694	4.225	-2.160	150.000	5.952	0.000

Indicator data (standardized)

Matrix

Case index	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
1	-1.299	-1.240	-0.924	0.124	-1.638	-1.771	-2.161	-1.772	-0.982	-1.049	-0.201	-2.134	-0.734	-1.962	-0.736	-2.179	0.549	-0.283	0.509	-1.107	-1.122	-1.213	-0.698
2	0.542	-1.543	-0.623	0.568	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.597	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	0.509	-1.107	-1.122	-1.213	-0.943
3	-0.512	-0.633	-2.126	-2.981	-1.638	-0.601	-2.161	0.591	-0.594	-2.031	-1.787	0.590	-2.077	-0.694	-0.736	-0.811	-0.949	0.137	-0.932	-1.107	0.451	0.456	0.253
4	-2.606	-2.453	-1.826	-2.981	-0.526	-1.771	-0.822	-1.772	-1.767	-1.373	-1.390	-0.772	-0.734	-1.962	-2.036	-2.179	-0.949	-3.222	-3.813	-4.361	-2.694	-2.883	-2.383
5	-1.032	-0.936	-0.623	-1.207	-1.638	-0.601	-0.822	-0.591	0.192	-1.697	-0.399	-2.134	-0.734	-0.694	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	-1.213	-1.418
6	-2.606	-2.453	-3.930	-2.981	-3.861	-2.942	-3.501	-2.953	-4.113	-2.031	-3.373	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	0.456	-4.298
7	-2.086	-0.330	0.579	-0.763	-3.861	-4.113	0.518	-1.772	-1.767	-1.697	-0.994	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.542	-2.372	-1.107	-2.694	-2.883	-3.578
8	-1.819	-0.936	-0.924	-1.207	-0.526	-0.601	-3.501	-2.953	-1.767	-1.697	-1.192	0.590	-0.734	-3.231	-3.335	0.556	-0.949	-1.542	-2.372	-1.107	0.451	-2.883	-1.187
9	-0.512	-0.330	-0.022	-1.650	-2.749	-2.942	-2.161	-0.591	-2.155	0.592	-1.589	0.590	0.609	0.575	-0.736	0.556	0.549	-0.703	0.509	0.521	0.451	-2.883	-1.907
10	-0.764	-0.330	-0.323	-1.207	0.585	0.570	0.518	-0.591	-0.207	0.592	-0.399	0.590	0.609	0.575	0.563	0.556	0.549	-1.122	-0.932	-1.107	0.451	-1.213	-0.223
11	-1.032	-0.633	-0.924	-1.207	-1.638	-1.771	-0.822	-1.772	-0.594	-1.697	-0.796	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	0.456	-0.223
12	-1.032	-1.240	-0.623	-1.207	-1.638	-0.601	-2.161	-0.591	-0.594	-2.031	-0.597	-2.134	-2.077	-0.694	0.563	-0.811	-0.949	-0.703	-2.372	-1.107	0.451	0.456	-0.943

13	-1.551	-0.936	-1.224	-1.207	-1.638	-0.601	-2.161	-1.772	-1.380	-1.697	-0.796	-0.772	-0.734	-1.962	-2.036	-2.179	-2.447	-0.703	0.509	0.521	-1.122	0.456	-0.698
14	-2.086	-1.240	-1.525	-1.650	-1.638	-0.601	-0.822	-0.591	-1.767	-1.373	-1.589	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.962	-2.372	-1.107	-1.122	-1.213	-0.943
15	-2.338	-2.453	-1.826	-2.981	0.585	0.570	0.518	0.591	-0.982	-1.373	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-2.447	-1.122	-0.932	-1.107	-2.694	-1.213	-2.383
16	-1.032	-0.936	-0.623	-0.763	-0.526	-0.601	-0.822	-0.591	-0.594	-1.697	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-0.703	-0.932	-1.107	-1.122	0.456	-0.943
17	-1.299	-1.543	-1.224	-1.207	-0.526	-1.771	-0.822	-0.591	-0.594	-0.067	-1.390	-2.134	-2.077	-0.694	-0.736	-2.179	-0.949	-0.703	-2.372	-1.107	-1.122	-2.883	-1.187
18	-1.032	-0.330	-0.623	0.568	-1.638	-1.771	-0.822	-1.772	-0.207	-3.338	-0.201	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-0.703	-0.932	-2.734	-2.694	0.456	-0.698
19	-1.032	-0.936	-0.623	-1.207	-0.526	0.570	0.518	-1.772	-0.594	-0.715	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
20	0.542	-0.026	-0.022	-0.319	-1.638	-1.771	0.518	-0.591	-0.982	-0.391	-0.399	-2.134	0.609	0.575	-0.736	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
21	-2.606	-2.453	-1.224	-1.650	-1.638	-1.771	-2.161	-1.772	-2.940	-2.680	-2.382	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-2.372	-2.734	-1.122	-1.213	-2.383
22	-0.512	-0.330	-0.323	-0.763	-1.638	-0.601	-3.501	-2.953	0.192	-1.049	-1.985	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	-0.283	-0.932	0.521	0.451	0.456	0.497
23	0.542	-1.543	-1.525	0.568	-0.526	-1.771	0.518	-1.772	-1.767	0.267	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
24	-1.551	-1.543	-1.525	-2.537	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-0.932	-2.734	-1.122	-2.883	-1.663
25	-2.338	-2.453	-2.427	-1.650	-1.638	-1.771	-0.822	-1.772	-2.155	-1.697	-2.382	-2.134	-2.077	-1.962	-2.036	-3.547	-0.949	-1.122	-2.372	-1.107	-2.694	-2.883	-1.663
26	0.542	-2.150	-1.525	-0.763	-0.526	-0.601	-0.822	-0.591	-1.767	-1.373	-1.390	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	0.557	0.509	0.521	0.451	0.456	0.022
27	-2.086	-2.453	-1.826	-2.094	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-3.222	-2.372	-1.107	-2.694	-1.213	-2.138
28	-0.512	-0.633	-0.924	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-2.077	-0.694	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	0.456	-0.698
29	0.542	-1.846	-1.826	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.355	-2.382	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	-2.883	-3.823
30	-1.299	-2.453	-4.230	-0.763	0.585	0.570	0.518	-0.591	-2.940	-1.373	-3.373	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	-1.213	0.253
31	-1.032	-1.543	-2.126	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
32	-1.032	-0.330	-1.525	-1.650	-1.638	-1.771	-0.822	-0.591	-2.155	-2.680	-3.373	-0.772	-0.734	-1.962	-2.036	-0.811	-0.949	-1.542	-0.932	-2.734	-2.694	-1.213	-0.943
33	-2.606	-0.936	-0.623	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.373	-0.399	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-2.372	-2.734	-2.694	-2.883	-0.943
34	-3.393	-1.846	-1.525	-1.650	-1.638	-1.771	-2.161	-2.953	-1.380	-2.680	-1.390	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-4.061	-3.813	-1.107	-4.266	-2.883	-2.383
35	-0.764	-0.633	-1.525	-1.650	-0.526	-0.601	0.518	-0.591	-1.767	-1.049	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.542	-0.932	-1.107	0.451	0.456	0.253
36	-0.245	-0.936	-0.623	-0.319	-0.526	-0.601	-0.822	-0.591	-0.594	-0.391	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-0.703	-0.932	-1.107	0.451	0.456	-0.943
37	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
38	-1.032	-2.453	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.049	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.962	-0.932	-1.107	-1.122	-1.213	-2.138
39	-1.032	-0.936	-1.224	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.031	-2.382	-2.134	-2.077	-0.694	-0.736	-2.179	-2.447	-1.542	-2.372	-2.734	-2.694	-2.883	-2.383
40	0.542	-0.026	-0.623	-1.207	-0.526	-0.601	-0.822	-0.591	-0.982	-2.031	-0.994	-0.772	-0.734	0.575	0.563	0.556	-0.949	0.557	0.509	0.521	0.451	0.456	0.497
41	0.542	-1.846	-1.826	0.568	-2.749	-2.942	-2.161	-2.953	-0.207	-1.373	-0.994	-0.772	-2.077	-1.962	-0.736	-2.179	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
42	0.275	0.277	0.279	0.568	-0.526	-1.771	-0.822	0.591	0.579	0.592	0.592	-0.772	-2.077	-0.694	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
43	-2.606	-2.453	-1.826	-2.537	-1.638	-1.771	-2.161	-1.772	-1.767	-0.391	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-0.932	-1.107	0.451	-1.213	-0.698
44	-2.606	-2.453	-1.826	-2.981	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.802	-2.372	-2.734	-2.694	-2.883	-2.383
45	-1.032	-2.150	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-2.372	-2.734	-1.122	-1.213	-1.418
46	-0.764	0.277	-1.224	-0.319	-1.638	-1.771	0.518	-1.772	-0.594	-0.067	-0.597	0.590	-0.734	0.575	0.563	0.556	-0.949	-0.703	-0.932	-1.107	0.451	0.456	0.497
47	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
48	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
49	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
50	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
51	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
52	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
53	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
54	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
55	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
56	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
57	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
58	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
59	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
60	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
61	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
62	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
63	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
64	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
65	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
66	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
67	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
68	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
69	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
70	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
71	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
72	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
73	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
74	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
75	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
76	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
77	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
78	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
79	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
80	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
81	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
82	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
83	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
84	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
85	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
86	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
87	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
88	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
89	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
90	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
91	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
92	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
93	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
94	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
95	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
96	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
97	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
98	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
99	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
100	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
101	-2.606	0.580	-0.022	-2.537	-1.638	-0.601	0.518	-1.772	-2.155	-0.391	-2.184	-0.772	-0.734	-0.694	-2.036	-2.179	-2.447	-1.542	0.509	0.521	-2.694	-1.213	0.253
102	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
103	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
104	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
105	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
106	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
107	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
108	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
109	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
110	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
111	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
112	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
113	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
114	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
115	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
116	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
117	-2.606	-3.060	-2.427	-1.207	-0.526	-1.771	-0.822	-0.591	-2.940	-1.373	-2.382	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-2.382	-2.372	-2.734	-2.694	-1.213	-2.627
118	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
119	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
120	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
121	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
122	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
123	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
124	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
125	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
126	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
127	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
128	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
129	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
130	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
131	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
132	0.542	0.580	0.579	0.568	-1.638	0.570	0.518	-1.772	0.579	0.592	0.592	-2.134	-2.077	-1.962	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
133	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
134	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
135	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
136	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
137	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
138	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
139	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
140	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
141	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
142	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
143	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
144	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
145	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
146	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
147	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
148	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
149	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

Indicator data (correlations)

Empirical correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.810	0.774	0.880	0.742	0.734	0.706	0.785	0.830	0.777	0.788	0.748	0.755	0.807	0.877	0.842	0.831	0.910	0.871	0.813	0.809	0.763	0.802
CPP	0.810	1.000	0.929	0.811	0.699	0.746	0.753	0.768	0.861	0.813	0.850	0.831	0.836	0.847	0.832	0.875	0.833	0.842	0.785	0.787	0.664	0.698	0.816
CS	0.774	0.929	1.000	0.823	0.697	0.709	0.715	0.749	0.886	0.821	0.907	0.777	0.832	0.839	0.827	0.845	0.829	0.781	0.724	0.752	0.580	0.602	0.725
CX	0.880	0.811	0.823	1.000	0.733	0.691	0.720	0.709	0.846	0.782	0.851	0.712	0.754	0.735	0.802	0.776	0.805	0.853	0.785	0.768	0.674	0.714	0.781
FP1	0.742	0.699	0.697	0.733	1.000	0.924	0.789	0.871	0.771	0.780	0.764	0.785	0.798	0.754	0.768	0.759	0.733	0.710	0.641	0.624	0.587	0.574	0.717
FP2	0.734	0.746	0.709	0.691	0.924	1.000	0.750	0.825	0.787	0.744	0.758	0.748	0.764	0.732	0.764	0.761	0.716	0.728	0.677	0.681	0.627	0.639	0.739
FP3	0.706	0.753	0.715	0.720	0.789	0.750	1.000	0.802	0.685	0.764	0.719	0.728	0.800	0.790	0.753	0.738	0.746	0.690	0.663	0.631	0.483	0.569	0.679
FP4	0.785	0.768	0.749	0.709	0.871	0.825	0.802	1.000	0.773	0.780	0.771	0.810	0.825	0.869	0.844	0.813	0.785	0.782	0.709	0.666	0.613	0.625	0.675
FR	0.830	0.861	0.886	0.846	0.771	0.787	0.685	0.773	1.000	0.806	0.946	0.748	0.747	0.789	0.863	0.798	0.799	0.809	0.723	0.734	0.633	0.689	0.802
FS	0.777	0.813	0.821	0.782	0.780	0.744	0.764	0.780	0.806	1.000	0.840	0.808	0.836	0.848	0.838	0.823	0.836	0.805	0.777	0.807	0.746	0.616	0.770
GS	0.788	0.850	0.907	0.851	0.764	0.758	0.719	0.771	0.946	0.840	1.000	0.770	0.802	0.801	0.852	0.820	0.819	0.796	0.734	0.737	0.629	0.677	0.762
NFP1	0.748	0.831	0.777	0.712	0.785	0.748	0.728	0.810	0.748	0.808	0.770	1.000	0.909	0.836	0.789	0.876	0.819	0.743	0.707	0.712	0.662	0.610	0.689
NFP2	0.755	0.836	0.832	0.754	0.798	0.764	0.800	0.825	0.747	0.836	0.802	0.909	1.000	0.877	0.797	0.874	0.859	0.747	0.748	0.732	0.627	0.589	0.668
NFP3	0.807	0.847	0.839	0.735	0.754	0.732	0.790	0.869	0.789	0.848	0.801	0.836	0.877	1.000	0.918	0.872	0.837	0.823	0.755	0.760	0.685	0.684	0.718
NFP4	0.877	0.832	0.827	0.802	0.768	0.764	0.753	0.844	0.863	0.838	0.852	0.789	0.797	0.918	1.000	0.872	0.872	0.865	0.787	0.764	0.741	0.756	0.753
NFP5	0.842	0.875	0.845	0.776	0.759	0.761	0.738	0.813	0.798	0.823	0.820	0.876	0.874	0.872	0.872	1.000	0.883	0.812	0.755	0.779	0.767	0.690	0.736
NFP6	0.831	0.833	0.829	0.805	0.733	0.716	0.746	0.785	0.799	0.836	0.819	0.819	0.859	0.837	0.872	0.883	1.000	0.818	0.742	0.754	0.726	0.650	0.738
RA	0.910	0.842	0.781	0.853	0.710	0.728	0.690	0.782	0.809	0.805	0.796	0.743	0.747	0.823	0.865	0.812	0.818	1.000	0.890	0.853	0.818	0.788	0.834
TA1	0.871	0.785	0.724	0.785	0.641	0.677	0.663	0.709	0.723	0.777	0.734	0.707	0.748	0.755	0.787	0.755	0.742	0.890	1.000	0.876	0.767	0.778	0.798
TA2	0.813	0.787	0.752	0.768	0.624	0.681	0.631	0.666	0.734	0.807	0.737	0.712	0.732	0.760	0.764	0.779	0.754	0.853	0.876	1.000	0.772	0.741	0.782
TA3	0.809	0.664	0.580	0.674	0.587	0.627	0.483	0.613	0.633	0.746	0.629	0.662	0.627	0.685	0.741	0.767	0.726	0.818	0.767	0.772	1.000	0.757	0.754
TA4	0.763	0.698	0.602	0.714	0.574	0.639	0.569	0.625	0.689	0.616	0.677	0.610	0.589	0.684	0.756	0.690	0.650	0.788	0.778	0.741	0.757	1.000	0.794
TS	0.802	0.816	0.725	0.781	0.717	0.739	0.679	0.675	0.802	0.770	0.762	0.689	0.668	0.718	0.753	0.736	0.738	0.834	0.798	0.782	0.754	0.794	1.000

Model implied saturated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.858	0.845	0.848	0.758	0.742	0.703	0.741	0.863	0.823	0.857	0.788	0.801	0.808	0.795	0.813	0.797	0.853	0.770	0.762	0.735	0.730	0.814
CPP	0.858	1.000	0.858	0.861	0.769	0.752	0.713	0.752	0.875	0.835	0.869	0.799	0.813	0.819	0.807	0.825	0.808	0.865	0.781	0.773	0.746	0.741	0.826
CS	0.845	0.858	1.000	0.848	0.758	0.741	0.703	0.741	0.862	0.823	0.856	0.787	0.801	0.807	0.795	0.813	0.797	0.853	0.769	0.762	0.735	0.730	0.813
CX	0.848	0.861	0.848	1.000	0.761	0.744	0.705	0.743	0.865	0.826	0.859	0.790	0.804	0.810	0.798	0.816	0.799	0.856	0.772	0.765	0.738	0.733	0.816
FP1	0.758	0.769	0.758	0.761	1.000	0.903	0.856	0.902	0.773	0.738	0.768	0.785	0.798	0.805	0.793	0.810	0.794	0.764	0.664	0.658	0.635	0.630	0.729
FP2	0.742	0.752	0.741	0.744	0.903	1.000	0.838	0.883	0.756	0.722	0.751	0.768	0.781	0.787	0.775	0.793	0.777	0.748	0.650	0.644	0.621	0.616	0.713
FP3	0.703	0.713	0.703	0.705	0.856	0.838	1.000	0.837	0.717	0.684	0.712	0.728	0.740	0.746	0.735	0.751	0.736	0.709	0.616	0.610	0.588	0.584	0.676
FP4	0.741	0.752	0.741	0.743	0.902	0.883	0.837	1.000	0.756	0.721	0.750	0.767	0.780	0.786	0.775	0.792	0.776	0.747	0.649	0.643	0.620	0.616	0.713
FR	0.863	0.875	0.862	0.865	0.773	0.756	0.717	0.756	1.000	0.840	0.874	0.803	0.817	0.824	0.811	0.829	0.813	0.870	0.785	0.778	0.750	0.745	0.830
FS	0.823	0.835	0.823	0.826	0.738	0.722	0.684	0.721	0.840	1.000	0.834	0.767	0.780	0.786	0.774	0.791	0.776	0.830	0.749	0.742	0.716	0.711	0.792
GS	0.857	0.869	0.856	0.859	0.768	0.751	0.712	0.750	0.874	0.834	1.000	0.798	0.811	0.818	0.806	0.823	0.807	0.864	0.779	0.772	0.745	0.740	0.824
NFP1	0.788	0.799	0.787	0.790	0.785	0.768	0.728	0.767	0.803	0.767	0.798	1.000	0.870	0.877	0.863	0.883	0.865	0.794	0.726	0.719	0.694	0.689	0.758
NFP2	0.801	0.813	0.801	0.804	0.798	0.781	0.740	0.780	0.817	0.780	0.811	0.870	1.000	0.892	0.878	0.898	0.880	0.808	0.738	0.731	0.705	0.700	0.771
NFP3	0.808	0.819	0.807	0.810	0.805	0.787	0.746	0.786	0.824	0.786	0.818	0.877	0.892	1.000	0.885	0.905	0.887	0.814	0.744	0.737	0.711	0.706	0.777
NFP4	0.795	0.807	0.795	0.798	0.793	0.775	0.735	0.775	0.811	0.774	0.806	0.863	0.878	0.885	1.000	0.891	0.874	0.802	0.733	0.726	0.700	0.696	0.765
NFP5	0.813	0.825	0.813	0.816	0.810	0.793	0.751	0.792	0.829	0.791	0.823	0.883	0.898	0.905	0.891	1.000	0.893	0.820	0.749	0.742	0.716	0.711	0.782
NFP6	0.797	0.808	0.797	0.799	0.794	0.777	0.736	0.776	0.813	0.776	0.807	0.865	0.880	0.887	0.874	0.893	1.000	0.803	0.734	0.727	0.702	0.697	0.767
RA	0.853	0.865	0.853	0.856	0.764	0.748	0.709	0.747	0.870	0.830	0.864	0.794	0.808	0.814	0.802	0.820	0.803	1.000	0.776	0.769	0.741	0.736	0.821
TA1	0.770	0.781	0.769	0.772	0.664	0.650	0.616	0.649	0.785	0.749	0.779	0.726	0.738	0.744	0.733	0.749	0.734	0.776	1.000	0.874	0.843	0.837	0.741
TA2	0.762	0.773	0.762	0.765	0.658	0.644	0.610	0.643	0.778	0.742	0.772	0.719	0.731	0.737	0.726	0.742	0.727	0.769	0.874	1.000	0.835	0.829	0.734
TA3	0.735	0.746	0.735	0.738	0.635	0.621	0.588	0.620	0.750	0.716	0.745	0.694	0.705	0.711	0.700	0.716	0.702	0.741	0.843	0.835	1.000	0.799	0.707
TA4	0.730	0.741	0.730	0.733	0.630	0.616	0.584	0.616	0.745	0.711	0.740	0.689	0.700	0.706	0.696	0.711	0.697	0.736	0.837	0.829	0.799	1.000	0.703
TS	0.814	0.826	0.813	0.816	0.729	0.713	0.676	0.713	0.830	0.792	0.824	0.758	0.771	0.777	0.765	0.782	0.767	0.821	0.741	0.734	0.707	0.703	1.000

Model implied estimated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.858	0.845	0.848	0.580	0.567	0.537	0.566	0.863	0.823	0.857	0.634	0.644	0.650	0.640	0.654	0.641	0.853	0.770	0.762	0.735	0.730	0.814
CPP	0.858	1.000	0.858	0.861	0.588	0.575	0.545	0.575	0.875	0.835	0.869	0.643	0.654	0.659	0.649	0.663	0.650	0.865	0.781	0.773	0.746	0.741	0.826
CS	0.845	0.858	1.000	0.848	0.579	0.567	0.537	0.566	0.862	0.823	0.856	0.633	0.644	0.649	0.640	0.654	0.641	0.853	0.769	0.762	0.735	0.730	0.813
CX	0.848	0.861	0.848	1.000	0.581	0.569	0.539	0.568	0.865	0.826	0.859	0.636	0.646	0.652	0.642	0.656	0.643	0.856	0.772	0.765	0.738	0.733	0.816
FP1	0.580	0.588	0.579	0.581	1.000	0.903	0.856	0.902	0.591	0.564	0.587	0.547	0.556	0.561	0.552	0.564	0.553	0.584	0.664	0.658	0.635	0.630	0.558
FP2	0.567	0.575	0.567	0.569	0.903	1.000	0.838	0.883	0.578	0.552	0.574	0.535	0.544	0.548	0.540	0.552	0.541	0.572	0.650	0.644	0.621	0.616	0.546
FP3	0.537	0.545	0.537	0.539	0.856	0.838	1.000	0.837	0.548	0.523	0.544	0.507	0.516	0.520	0.512	0.523	0.513	0.542	0.616	0.610	0.588	0.584	0.517
FP4	0.566	0.575	0.566	0.568	0.902	0.883	0.837	1.000	0.578	0.551	0.574	0.534	0.543	0.548	0.539	0.551	0.540	0.571	0.649	0.643	0.620	0.616	0.545
FR	0.863	0.875	0.862	0.865	0.591	0.578	0.548	0.578	1.000	0.840	0.874	0.646	0.657	0.663	0.653	0.667	0.654	0.870	0.785	0.778	0.750	0.745	0.830
FS	0.823	0.835	0.823	0.826	0.564	0.552	0.523	0.551	0.840	1.000	0.834	0.617	0.627	0.632	0.623	0.637	0.624	0.830	0.749	0.742	0.716	0.711	0.792
GS	0.857	0.869	0.856	0.859	0.587	0.574	0.544	0.574	0.874	0.834	1.000	0.642	0.652	0.658	0.648	0.662	0.649	0.864	0.779	0.772	0.745	0.740	0.824
NFP1	0.634	0.643	0.633	0.636	0.547	0.535	0.507	0.534	0.646	0.617	0.642	1.000	0.870	0.877	0.863	0.883	0.865	0.639	0.726	0.719	0.694	0.689	0.610
NFP2	0.644	0.654	0.644	0.646	0.556	0.544	0.516	0.543	0.657	0.627	0.652	0.870	1.000	0.892	0.878	0.898	0.880	0.650	0.738	0.731	0.705	0.700	0.620
NFP3	0.650	0.659	0.649	0.652	0.561	0.548	0.520	0.548	0.663	0.632	0.658	0.877	0.892	1.000	0.885	0.905	0.887	0.655	0.744	0.737	0.711	0.706	0.625
NFP4	0.640	0.649	0.640	0.642	0.552	0.540	0.512	0.539	0.653	0.623	0.648	0.863	0.878	0.885	1.000	0.891	0.874	0.645	0.733	0.726	0.700	0.696	0.618
NFP5	0.654	0.663	0.654	0.656	0.564	0.552	0.523	0.551	0.667	0.637	0.662	0.883	0.898	0.905	0.891	1.000	0.893	0.659	0.749	0.742	0.716	0.711	0.629
NFP6	0.641	0.650	0.641	0.643	0.553	0.541	0.513	0.540	0.654	0.624	0.649	0.865	0.880	0.887	0.874	0.893	1.000	0.646	0.734	0.727	0.702	0.697	0.617
RA	0.853	0.865	0.853	0.856	0.584	0.572	0.542	0.571	0.870	0.830	0.864	0.639	0.650	0.655	0.645	0.659	0.646	1.000	0.776	0.769	0.741	0.736	0.821
TA1	0.770	0.781	0.769	0.772	0.664	0.650	0.616	0.649	0.785	0.749	0.779	0.726	0.738	0.744	0.733	0.749	0.734	0.776	1.000	0.874	0.843	0.837	0.741
TA2	0.762	0.773	0.762	0.765	0.658	0.644	0.610	0.643	0.778	0.742	0.772	0.719	0.731	0.737	0.726	0.742	0.727	0.769	0.874	1.000	0.835	0.829	0.734
TA3	0.735	0.746	0.735	0.738	0.635	0.621	0.588	0.620	0.750	0.716	0.745	0.694	0.705	0.711	0.700	0.716	0.702	0.741	0.843	0.835	1.000	0.799	0.707
TA4	0.730	0.741	0.730	0.733	0.630	0.616	0.584	0.616	0.745	0.711	0.740	0.689	0.700	0.706	0.696	0.711	0.697	0.736	0.837	0.829	0.799	1.000	0.703
TS	0.814	0.826	0.813	0.816	0.558	0.546	0.517	0.545	0.830	0.792	0.824	0.610	0.620	0.625	0.616	0.629	0.617	0.821	0.741	0.734	0.707	0.703	1.000

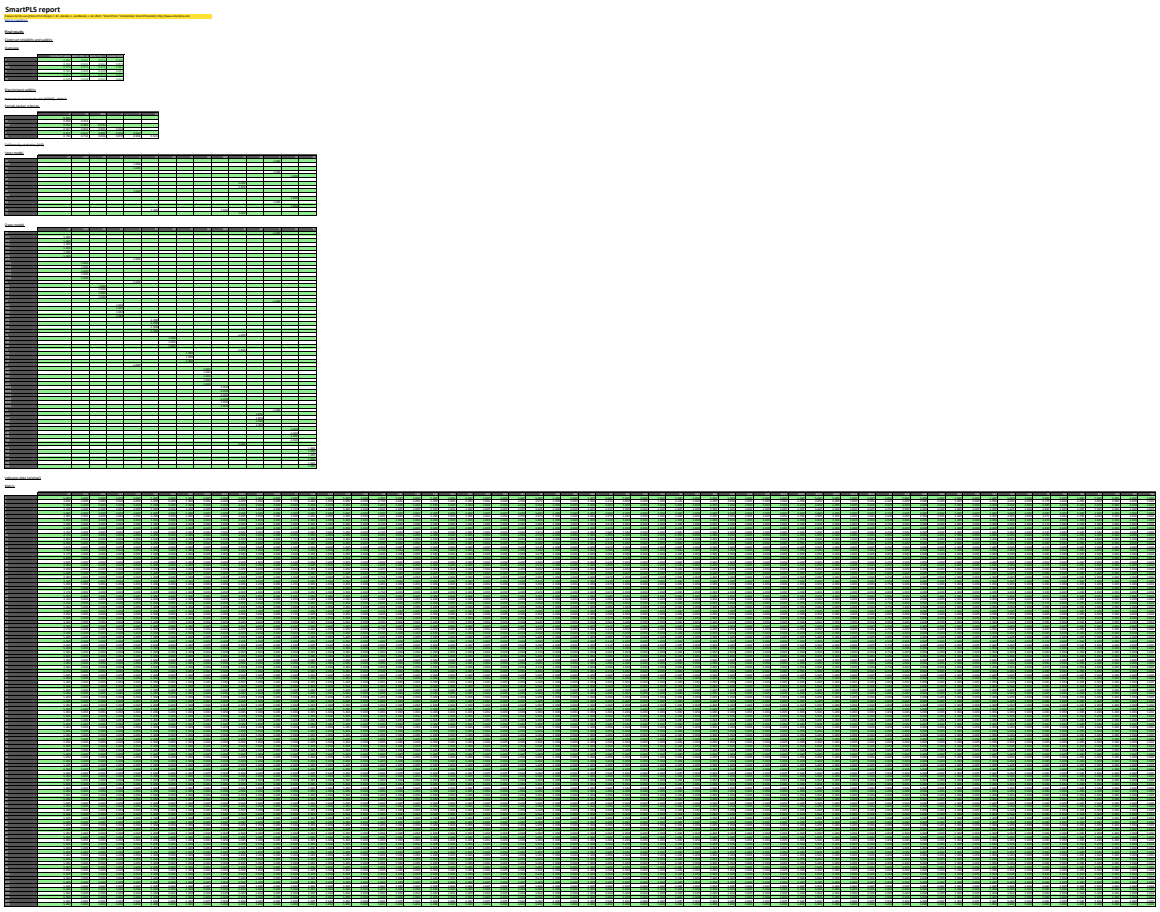
Empirical covariance matrix

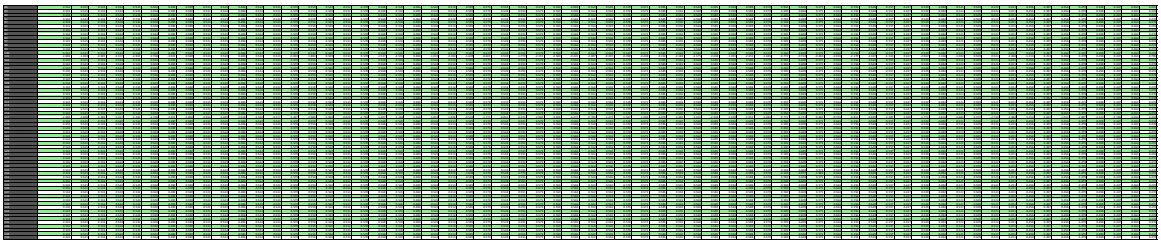
	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.810	0.774	0.880	0.742	0.734	0.706	0.785	0.830	0.777	0.788	0.748	0.755	0.807	0.877	0.842	0.831	0.910	0.871	0.813	0.809	0.763	0.802
CPP	0.810	1.000	0.929	0.811	0.699	0.746	0.753	0.768	0.861	0.813	0.850	0.831	0.836	0.847	0.832	0.875	0.833	0.842	0.785	0.787	0.664	0.698	0.816
CS	0.774	0.929	1.000	0.823	0.697	0.709	0.715	0.748	0.886	0.821	0.907	0.777	0.832	0.839	0.827	0.845	0.829	0.781	0.724	0.752	0.580	0.602	0.725
CX	0.880	0.811	0.823	1.000	0.733	0.691	0.720	0.709	0.846	0.782	0.851	0.712	0.754	0.735	0.802	0.776	0.805	0.853	0.785	0.768	0.674	0.714	0.781
FP1	0.742	0.699	0.697	0.733	1.000	0.924	0.789	0.871	0.771	0.780	0.764	0.785	0.798	0.754	0.768	0.759	0.733	0.710	0.641	0.624	0.587	0.574	0.717
FP2	0.734	0.746	0.709	0.691	0.924	1.000	0.750	0.825	0.787	0.744	0.758	0.748	0.764	0.732	0.764	0.761	0.716	0.728	0.677	0.681	0.627	0.639	0.739
FP3	0.706	0.753	0.715	0.720	0.789	0.750	1.000	0.802	0.685	0.764	0.719	0.728	0.800	0.790	0.753	0.738	0.746	0.690	0.663	0.631	0.483	0.569	0.679
FP4	0.785	0.768	0.749	0.709	0.871	0.825	0.802	1.000	0.773	0.780	0.771	0.810	0.825	0.869	0.844	0.813	0.785	0.782	0.709	0.666	0.613	0.625	0.675
FR	0.830	0.861	0.886	0.846	0.771	0.787	0.685	0.773	1.000	0.806	0.946	0.748	0.747	0.789	0.863	0.798	0.799	0.809	0.723	0.734	0.633	0.689	0.802
FS	0.777	0.813	0.821	0.782	0.780	0.744	0.764	0.780	0.806	1.000	0.840	0.808	0.836	0.848	0.838	0.823	0.836	0.805	0.777	0.807	0.746	0.616	0.770
GS	0.788	0.850	0.907	0.851	0.764	0.758	0.719	0.771	0.946	0.840	1.000	0.770	0.802	0.801	0.852	0.820	0.819	0.786	0.734	0.737	0.629	0.677	0.762
NFP1	0.748	0.831	0.777	0.712	0.785	0.748	0.728	0.810	0.748	0.808	0.770	1.000	0.909	0.836	0.789	0.876	0.819	0.743	0.707	0.712	0.662	0.610	0.689
NFP2	0.755	0.836	0.832	0.754	0.798	0.764	0.800	0.825	0.747	0.836	0.802	0.909	1.000	0.877	0.797	0.874	0.859	0.747	0.748	0.732	0.627	0.589	0.668
NFP3	0.807	0.847	0.839	0.735	0.754	0.732	0.790	0.869	0.789	0.848	0.801	0.836	0.877	1.000	0.918	0.872	0.837	0.823	0.755	0.760	0.685	0.684	0.718
NFP4	0.877	0.832	0.827	0.802	0.768	0.764	0.753	0.844	0.863	0.838	0.852	0.789	0.797	0.918	1.000	0.872	0.872	0.865	0.787	0.754	0.741	0.756	0.753
NFP5	0.842	0.875	0.845	0.776	0.759	0.761	0.738	0.813	0.798	0.823	0.820	0.876	0.874	0.872	0.872	1.000	0.883	0.812	0.755	0.779	0.767	0.690	0.736
NFP6	0.831	0.833	0.829	0.805	0.733	0.716	0.746	0.785	0.799	0.836	0.819	0.819	0.859	0.837	0.872	0.883	1.000	0.818	0.742	0.754	0.726	0.650	0.738
RA	0.910	0.842	0.781	0.853	0.710	0.728	0.690	0.782	0.809	0.805	0.796	0.743	0.747	0.823	0.865	0.812	0.818	1.000	0.890	0.853	0.818	0.788	0.834
TA1	0.871	0.785	0.724	0.785	0.641	0.677	0.663	0.709	0.723	0.777	0.734	0.707	0.748	0.755	0.787	0.755	0.742	0.890	1.000	0.876	0.767	0.778	0.798
TA2	0.813	0.787	0.752	0.768	0.624	0.681	0.631	0.666	0.734	0.807	0.737	0.712	0.732	0.760	0.764	0.779	0.754	0.853	0.876	1.000	0.772	0.741	0.782
TA3	0.809	0.664	0.580	0.674	0.587	0.627	0.483	0.613	0.633	0.746	0.629	0.662	0.627	0.685	0.741	0.767	0.726	0.818	0.767	0.772	1.000	0.757	0.754
TA4	0.763	0.698	0.602	0.714	0.574	0.639	0.569	0.625	0.689	0.616	0.677	0.610	0.589	0.684	0.756	0.690	0.650	0.788	0.778	0.741	0.757	1.000	0.794
TS	0.802	0.816	0.725	0.781	0.717	0.739	0.679	0.675	0.802	0.770	0.762	0.689	0.668	0.718	0.753	0.736	0.738	0.834	0.798	0.782	0.754	0.794	1.000

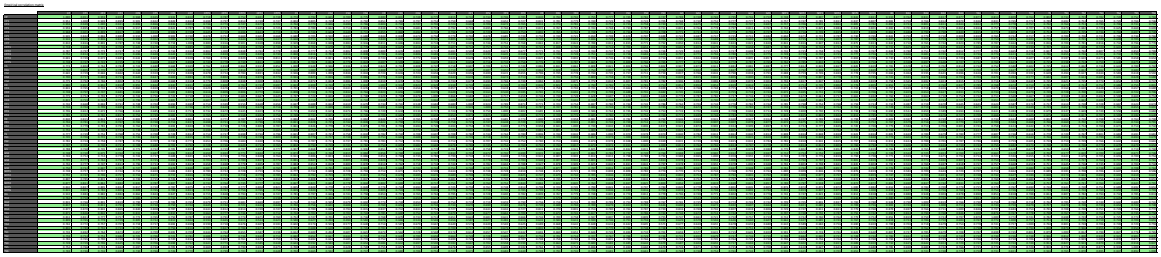
Appendix I:

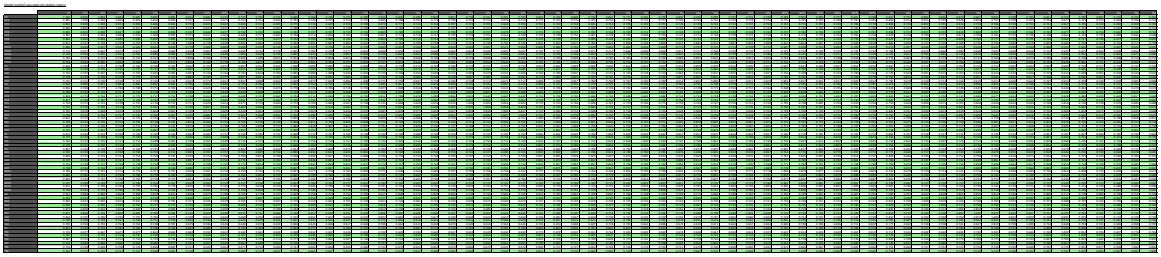
PLS-SEM Algorithm's Factor Analysis for Formative Measurement (VIF) from SmartPLS 4.1

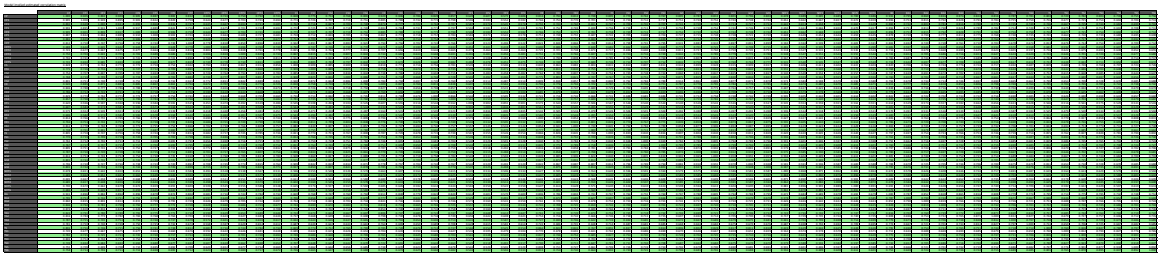
i. First-Order Model

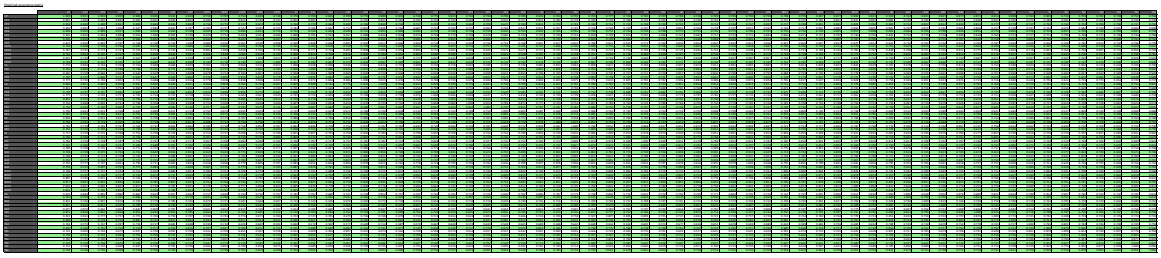












ii. Second-Order Model

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

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Final results

Inner model - Matrix

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Inner model - List

	VIF
TA -> FP	1.000
TA -> NFP	1.000
TOE -> TA	1.000

Algorithm

Setting

Data file

	Setting
Data file	Filter 159 pax
Weighting vector	

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^{-7}
Type of results	Standardized
Use Lohmoeller setting?	No
Weighting scheme	Factor

Construct outer weighting mode

	Setting
FP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TOE	AUTOMATIC

Stop criterion changes

Matrix

	CP	CPP	CS	CK	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
Iteration 0	0.121	0.121	0.121	0.121	0.268	0.268	0.268	0.268	0.121	0.121	0.121	0.177	0.177	0.177	0.177	0.177	0.177	0.121	0.273	0.273	0.273	0.273	0.121
Iteration 1	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.189	0.185	0.178	0.136	0.289	0.286	0.259	0.258	0.127
Iteration 2	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127
Iteration 3	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127
Iteration 4	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127
Iteration 5	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127

Posthoc minimum sample size

List

	h coefficients	n, power 80%	n, power 80%	n, power 90%	n, power 90%
TA -> FP	0.736	19.000	12.000	25.000	16.000
TA -> NFP	0.836	15.000	9.000	19.000	13.000
TOE -> TA	0.891	13.000	8.000	17.000	11.000

Execution log

Reading score matrix of complete data set
Calculating full data set.
Running PLS-SEM iterations, at most 3000.
Calculating report matrices and charts.
All calculations done.

Model and data

Inner model

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Outer model

	FP	NFP	TA	TOE
CP				-1.000
CPP				-1.000
CS				-1.000
CK				-1.000
FP1	-1.000			
FP2	-1.000			
FP3	-1.000			
FP4	-1.000			
FR				-1.000
FS				-1.000
GS				-1.000
NFP1		-1.000		
NFP2		-1.000		
NFP3		-1.000		
NFP4		-1.000		
NFP5		-1.000		
NFP6		-1.000		
RA				-1.000
TA1			-1.000	
TA2			-1.000	
TA3			-1.000	
TA4			-1.000	
TS				-1.000

Indicator data (original)

Matrix

	CP	CPP	CS	CK	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
1	3.830	3.800	3.750	4.750	3.000	3.000	3.000	3.000	3.670	3.330	4.200	3.000	4.000	3.000	4.000	3.000	4.000	4.500	5.000	4.000	4.000	4.000	4.170
2	5.000	3.600	4.000	5.000	4.000	4.000	4.000	4.000	4.000	3.000	3.800	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
3	4.330	4.200	2.750	3.000	3.000	4.000	3.000	5.000	4.000	2.330	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
4	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	4.000	3.000	3.000	3.000	4.000	2.750	2.000	2.000	3.000	3.000	3.000
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.670	2.670	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.670
6	3.000	3.000	1.250	3.000	1.000	2.000	2.000	2.000	1.000	2.330	1.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	5.000	5.000	1.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	3.000	2.670	3.400	4.000	4.000	4.000	4.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	2.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.000	2.670	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.830
9	4.330	4.400	4.500	3.750	2.000	2.000	3.000	4.000	2.670	5.000	2.800	5.000	5.000	5.000	4.000	5.000	5.000	4.250	5.000	5.000	5.000	3.000	3.330
10	4.170	4.400	4.250	4.000	4.000	5.000	5.000	4.000	4.330	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	4.000	4.000	5.000	4.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.000	2.670	3.600	4.000	4.000	3.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	5.000	4.500
12	4.000	3.800	4.000	4.000	3.000	4.000	3.000	4.000	4.000	2.330	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	5.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	3.000	3.000	3.330	2.670	3.600	4.000	4.000	3.000	3.000	3.000	3.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	4.000	4.000	4.000	3.000	3.000	2.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	4.000	4.000	4.000	4.000
15	3.170	3.000	3.000	3.000	5.000	5.000	5.000	5.000	3.670	3.000	3.400	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	3.000	4.000	3.000
16	4.000	4.000	4.000	4.250	4.000	4.000	4.000	4.000	4.000	2.670	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	4.000	4.330	3.000	3.000	3.000	4.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.330	1.000	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	5.000	5.000	5.000	3.000	4.000	3.670	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
20	5.000	4.600	4.500	4.500	3.000	3.000	5.000	4.000	3.670	4.000	4.000	3.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	3.000	3.500	3.750	3.000	3.000	3.000	3.000	2.000	1.670	2.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	3.000	3.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.670	3.330	2.400	3.000	3.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	3.600	3.250	5.000	4.000	3.000	5.000	3.000	3.000	4.670	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.170	3.600	3.250	3.750	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	4.000	3.000	4.000	3.000	3.500
25	3.170	3.000	2.500	3.750	3.000	3.000	4.000	3.000	2.670	2.670	2.000	3.000	3.000	3.000	3.000	2.000	4.000	4.000	3.000	4.000	3.000	3.000	3.500
26	5.000	3.200	3.250	4.250	4.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	4.670
27	3.330	3.000	3.000	3.500	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	3.000	2.000	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000
30	3.830	3.000	1.000	4.250	5.000	5.000	5.000	4.000	2.000	3.000	1.000	3.000	3.000	3.000	2.000	2.000	3.000	4.000	4.000	4.000	5.000	4.000	4.830
31	4.000	3.600	2.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
32	4.000	4.400	3.250	3.750	3.000	3.000	4.000	4.000	2.670	1.670	1.000	4.000	4.000	3.000	3.000	4.000	4.000	3.750	4.000	3.000	3.000	4.000	4.000
33	3.000	4.000	4.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000
34	2.500	3.400	3.250	3.750	3.000	3.000	3.000	2.000	3.330	1.670	3.000	3.000	3.000	2.000	2.000	3.000	3.000	2.250	2.000	4.000	2.000	3.000	3.000
35	4.170	4.200	3.250	3.750	4.000	4.000	5.000	4.000	3.000	3.330	3.000	4.000	4.000	4.000	4.000	4.000	5.000	3.750	4.000	4.000	5.000	5.000	4.830
36	4.500	4.000	4.000	4.500	4.000	4.000	4.000	4.000	4.000	4.000	3.400	4.000	4.000	4.000	4.000	4.000	4.000	4.250	4.000	4.000	5.000	5.000	4.000
37	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
38	4.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.500	4.000	4.000	4.000	4.000	3.170
39	4.000	4.000	3.500	4.000	4.000	4.000	4.000	4.000	3.000	2.330	2.000	3.000	3.000	4.000	4.000	3.000	3.000	3.750	3.000	3.000	3.000	3.000	3.000
40	5.000	4.600	4.000	4.000	4.000	4.000	4.000	4.000	3.670	2.330	3.400	4.000	4.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
41	5.000	3.400	3.000	5.000	2.000	2.000	3.000	2.000	4.330	3.000	3.400	4.000	3.000	3.000	4.000	3.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
42	4.830	4.830	4.750	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

43	3.000	3.000	3.000	3.250	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	4.000	4.000	5.000	4.000	4.170
44	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
45	4.000	3.200	3.000	4.000	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	3.000	3.000	4.000	4.000	3.670
46	4.170	4.800	3.500	4.500	3.000	3.000	5.000	3.000	4.000	4.330	3.800	5.000	4.000	5.000	5.000	5.000	4.000	4.250	4.000	4.000	5.000	5.000	5.000
47	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
48	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
49	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
50	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
51	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
52	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
53	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
54	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
55	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
56	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
57	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
58	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
59	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
61	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
62	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
63	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
64	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
65	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
66	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
67	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
68	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
69	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
70	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
71	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
72	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
73	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
74	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
75	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
76	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
77	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
78	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
79	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
80	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
81	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
82	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
83	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
84	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
85	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
86	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
87	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
88	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
89	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
90	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
91	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
92	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
93	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
94	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
95	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
96	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
97	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
98	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
99	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
100	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
101	3.000	5.000	4.500	3.250	3.000	4.000	5.000	3.000	2.670	4.000	2.200	4.000	4.000	4.000	3.000	3.000	3.000	3.750	5.000	5.000	3.000	4.000	4.830
102	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
103	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
104	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
105	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
106	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
107	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
108	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
109	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
110	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
111	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
112	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
113	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
114	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
115	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
116	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
117	3.000	2.600	2.500	4.000	4.000	3.000	4.000	4.000	2.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	3.250	3.000	3.000	3.000	4.000	2.830
118	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
119	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
120	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
121	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
122	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
123	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
124	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
125	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
126	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
127	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
128	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
129	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
130	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
131	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
132	5.000	5.000	5.000	5.000	3.000	5.000	5.000	3.000	5.000	5.000	5.000	3.000	3.000	3.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
133	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
134	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
135	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
136	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
137	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
138	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
139	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
140	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
141	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
142	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
143	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
144	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
145	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
146	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
147	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
148	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
149	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

MV descriptives

	Mean	Median	Observed min	Observed max	lard deviation	xcess kurtosis	Skewness	rvations used	s test statistic	Mises p value
CP	4.655	5.000	2.500	5.000	0.635	1.573	-1.683	150.000	5.718	0.000
CPP	4.617	5.000	2.600	5.000	0.659	0.948	-1.526	150.000	5.034	0.000
CS	4.518	5.000	1.000	5.000	0.832	2.688	-1.738	150.000	4.915	0.000
CX	4.680	5.000	3.000	5.000	0.564	1.347	-1.579	150.000	5.462	0.000
FP1	4.473	5.000	1.000	5.000	0.900	2.075	-1.640	150.000	5.014	0.000
FP2	4.513	5.000	1.000	5.000	0.854	1.980	-1.662	150.000	5.264	0.000
FP3	4.613	5.000	2.000	5.000	0.746	2.419	-1.852	150.000	6.063	0.000
FP4	4.500	5.000	2.000	5.000	0.847	1.024	-1.498	150.000	5.017	0.000
FR	4.507	5.000	1.000	5.000	0.853	2.078	-1.677	150.000	4.914	0.000
FS	4.398	5.000	1.000	5.000	1.018	0.553	-1.389	150.000	5.385	0.000
GS	4.403	5.000	1.000	5.000	1.009	1.609	-1.583	150.000	4.798	0.000
NFP1	4.567	5.000	3.000	5.000	0.734	0.226	-1.357	150.000	5.353	0.000
NFP2	4.547	5.000	3.000	5.000	0.745	0.033	-1.287	150.000	5.099	0.000
NFP3	4.547	5.000	2.000	5.000	0.788	1.250	-1.559	150.000	5.265	0.000
NFP4	4.567	5.000	2.000	5.000	0.770	1.631	-1.645	150.000	5.370	0.000
NFP5	4.593	5.000	2.000	5.000	0.731	1.116	-1.569	150.000	5.707	0.000
NFP6	4.633	5.000	3.000	5.000	0.667	1.091	-1.587	150.000	5.849	0.000
RA	4.668	5.000	2.250	5.000	0.595	2.372	-1.753	150.000	5.348	0.000
TA1	4.647	5.000	2.000	5.000	0.694	2.853	-1.928	150.000	6.195	0.000
TA2	4.680	5.000	2.000	5.000	0.614	3.236	-1.936	150.000	6.086	0.000
TA3	4.713	5.000	2.000	5.000	0.636	3.789	-2.180	150.000	7.329	0.000
TA4	4.727	5.000	3.000	5.000	0.599	2.947	-2.064	150.000	7.374	0.000
TS	4.655	5.000	1.670	5.000	0.694	4.225	-2.160	150.000	5.952	0.000

Indicator data (standardized)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
1	-1.299	-1.240	-0.924	0.124	-1.638	-1.771	-2.161	-1.772	-0.982	-1.049	-0.201	-2.134	-0.734	-1.962	-0.736	-2.179	0.549	-0.283	0.509	-1.107	-1.122	-1.213	-0.698
2	0.542	-1.543	-0.623	0.568	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.597	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	0.509	-1.107	-1.122	-1.213	-0.943
3	-0.512	-0.633	-2.126	-2.981	-1.638	-0.601	-2.161	0.591	-0.594	-2.031	-1.787	0.590	-2.077	-0.694	-0.736	-0.811	-0.949	0.137	-0.932	-1.107	0.451	0.456	0.253
4	-2.606	-2.453	-1.826	-2.981	-0.526	-1.771	-0.822	-1.772	-1.767	-1.373	-1.390	-0.772	-0.734	-1.962	-2.036	-2.179	-0.949	-3.222	-3.813	-4.361	-2.694	-2.883	-2.383
5	-1.032	-0.936	-0.623	-1.207	-1.638	-0.601	-0.822	-0.591	0.192	-1.697	-0.399	-2.134	-0.734	-0.694	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	-1.213	-1.418
6	-2.606	-2.453	-3.930	-2.981	-3.861	-2.942	-3.501	-2.953	-4.113	-2.031	-3.373	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	0.456	-4.298
7	-2.086	-0.330	0.579	-0.763	-3.861	-4.113	0.518	-1.772	-1.767	-1.697	-0.994	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.542	-2.372	-1.107	-2.694	-2.883	-3.578
8	-1.819	-0.936	-0.924	-1.207	-0.526	-0.601	-3.501	-2.953	-1.767	-1.697	-1.192	0.590	-0.734	-3.231	-3.335	0.556	-0.949	-1.542	-2.372	-1.107	0.451	-2.883	-1.187
9	-0.512	-0.330	-0.022	-1.650	-2.749	-2.942	-2.161	-0.591	-2.155	0.592	-1.589	0.590	0.609	0.575	-0.736	0.556	0.549	-0.703	0.509	0.521	0.451	-2.883	-1.907
10	-0.764	-0.330	-0.323	-1.207	0.585	0.570	0.518	-0.591	-0.207	0.592	-0.399	0.590	0.609	0.575	0.563	0.556	0.549	-1.122	-0.932	-1.107	0.451	-1.213	-0.223
11	-1.032	-0.633	-0.924	-1.207	-1.638	-1.771	-0.822	-1.772	-0.594	-1.697	-0.796	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	0.456	-0.223
12	-1.032	-1.240	-0.623	-1.207	-1.638	-0.601	-2.161	-0.591	-0.594	-2.031	-0.597	-2.134	-2.077	-0.694	0.563	-0.811	-0.949	-0.703	-2.372	-1.107	0.451	0.456	-0.943
13	-1.551	-0.936	-1.224	-1.207	-1.638	-0.601	-2.161	-1.772	-1.380	-1.697	-0.796	-0.772	-0.734	-1.962	-2.036	-2.179	-2.447	-0.703	0.509	0.521	-1.122	0.456	-0.698
14	-2.086	-1.240	-1.525	-1.650	-1.638	-0.601	-0.822	-0.591	-1.767	-1.373	-1.589	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.962	-2.372	-1.107	-1.122	-1.213	-0.943
15	-2.338	-2.453	-1.826	-2.981	0.585	0.570	0.518	0.591	-0.982	-1.373	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-2.447	-1.122	-0.932	-1.107	-2.694	-1.213	-2.383
16	-1.032	-0.936	-0.623	-0.763	-0.526	-0.601	-0.822	-0.591	-0.594	-1.697	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-0.703	-0.932	-1.107	-1.122	0.456	-0.943
17	-1.299	-1.543	-1.224	-1.207	-0.526	-1.771	-0.822	-0.591	-0.594	-0.067	-1.390	-2.134	-2.077	-0.694	-0.736	-2.179	-0.949	-0.703	-2.372	-1.107	-1.122	-2.883	-1.187
18	-1.032	-0.330	-0.623	0.568	-1.638	-1.771	-0.822	-1.772	-0.207	-3.338	-0.201	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-0.703	-0.932	-2.734	-2.694	0.456	-0.698
19	-1.032	-0.936	-0.623	-1.207	-0.526	0.570	0.518	-1.772	-0.594	-0.715	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
20	0.542	-0.026	-0.022	-0.319	-1.638	-1.771	0.518	-0.591	-0.982	-0.391	-0.399	-2.134	0.609	0.575	-0.736	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
21	-2.606	-2.453	-1.224	-1.650	-1.638	-1.771	-2.161	-1.772	-2.940	-2.680	-2.382	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-2.372	-2.734	-1.122	-1.213	-2.383
22	-0.512	-0.330	-0.323	-0.763	-1.638	-0.601	-3.501	-2.953	0.192	-1.049	-1.985	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	-0.283	-0.932	0.521	0.451	0.456	0.497
23	0.542	-1.543	-1.525	0.568	-0.526	-1.771	0.518	-1.772	-1.767	0.267	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
24	-1.551	-1.543	-1.525	-2.537	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-0.932	-2.734	-1.122	-2.883	-1.663
25	-2.338	-2.453	-2.427	-1.650	-1.638	-1.771	-0.822	-1.772	-2.155	-1.697	-2.382	-2.134	-2.077	-1.962	-2.036	-3.547	-0.949	-1.122	-2.372	-1.107	-2.694	-2.883	-1.663
26	0.542	-2.150	-1.525	-0.763	-0.526	-0.601	-0.822	-0.591	-1.767	-1.373	-1.390	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	0.557	0.509	0.521	0.451	0.456	0.022
27	-2.086	-2.453	-1.826	-2.094	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-3.222	-2.372	-1.107	-2.694	-1.213	-2.138
28	-0.512	-0.633	-0.924	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-2.077	-0.694	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	0.456	-0.698
29	0.542	-1.846	-1.826	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.355	-2.382	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	-2.883	-3.823
30	-1.299	-2.453	-4.230	-0.763	0.585	0.570	0.518	-0.591	-2.940	-1.373	-3.373	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	-1.213	0.253
31	-1.032	-1.543	-2.126	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943

32	-1.032	-0.330	-1.525	-1.650	-1.638	-1.771	-0.822	-0.591	-2.155	-2.680	-3.373	-0.772	-0.734	-1.962	-2.036	-0.811	-0.949	-1.542	-0.932	-2.734	-2.694	-1.213	-0.943
33	-2.606	-0.936	-0.623	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.373	-0.399	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-2.372	-2.734	-2.694	-2.883	-0.943
34	-3.393	-1.846	-1.525	-1.650	-1.638	-1.771	-2.161	-2.953	-1.380	-2.680	-1.390	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-4.061	-3.813	-1.107	-4.266	-2.883	-2.383
35	-0.764	-0.633	-1.525	-1.650	-0.526	-0.601	0.518	-0.591	-1.767	-1.049	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.542	-0.932	-1.107	0.451	0.456	0.253
36	-0.245	-0.936	-0.623	-0.319	-0.526	-0.601	-0.822	-0.591	-0.594	-0.391	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-0.703	-0.932	-1.107	0.451	0.456	-0.943
37	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
38	-1.032	-2.453	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.049	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.962	-0.932	-1.107	-1.122	-1.213	-2.138
39	-1.032	-0.936	-1.224	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.031	-2.382	-2.134	-2.077	-0.694	-0.736	-2.179	-2.447	-1.542	-2.372	-2.734	-2.694	-2.883	-2.383
40	0.542	-0.026	-0.623	-1.207	-0.526	-0.601	-0.822	-0.591	-0.982	-2.031	-0.994	-0.772	-0.734	0.575	0.563	0.556	-0.949	0.557	0.509	0.521	0.451	0.456	0.497
41	0.542	-1.846	-1.826	0.568	-2.749	-2.942	-2.161	-2.953	-0.207	-1.373	-0.994	-0.772	-2.077	-1.962	-0.736	-2.179	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
42	0.275	0.277	0.279	0.568	-0.526	-1.771	-0.822	0.591	0.579	0.592	0.592	-0.772	-2.077	-0.694	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
43	-2.606	-2.453	-1.826	-2.537	-1.638	-1.771	-2.161	-1.772	-1.767	-0.391	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-0.932	-1.107	0.451	-1.213	-0.698
44	-2.606	-2.453	-1.826	-2.981	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.802	-2.372	-2.734	-2.694	-2.883	-2.383
45	-1.032	-2.150	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-2.372	-2.734	-1.122	-1.213	-1.418
46	-0.764	0.277	-1.224	-0.319	-1.638	-1.771	0.518	-1.772	-0.594	-0.067	-0.597	0.590	-0.734	0.575	0.563	0.556	-0.949	-0.703	-0.932	-1.107	0.451	0.456	0.497
47	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
48	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
49	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
50	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
51	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
52	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
53	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
54	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
55	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
56	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
57	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
58	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
59	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
60	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
61	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
62	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
63	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
64	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
65	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
66	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
67	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
68	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
69	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
70	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
71	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
72	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
73	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
74	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
75	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
76	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
77	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
78	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
79	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
80	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
81	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
82	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
83	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
84	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
85	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
86	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
87	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
88	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
89	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
90	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
91	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
92	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
93	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
94	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
95	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
96	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
97	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
98	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
99	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
100	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
101	-2.606	0.580	-0.022	-2.537	-1.638	-0.601	0.518	-1.772	-2.155	-0.391	-2.184	-0.772	-0.734	-0.694	-2.036	-2.179	-2.447	-1.542	0.509	0.521	-2.694	-1.213	0.253
102	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
103	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
104	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
105	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
106	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
107	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
108	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
109	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
110	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
111	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
112	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
113	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
114	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
115	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
116	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
117	-2.606	-3.060	-2.427	-1.207	-0.526	-1.771	-0.822	-0.591	-2.940	-1.373	-2.382	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-2.382	-2.372	-2.734	-2.694	-1.213	-2.627
118	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
119	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
120	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
121	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
122	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
123	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
124	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
125	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
126	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
127	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
128	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
129	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
130	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
131	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
132	0.542	0.580	0.579	0.568	-1.638	0.570	0.518	-1.772	0.579	0.592	0.592	-2.134	-2.077	-1.962	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
133	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
134	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
135	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
136	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
137	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
138	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
139	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
140	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
141	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
142	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
143	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
144	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
145	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
146	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
147	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
148	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
149	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

Indicator data (correlations)

Empirical correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.810	0.774	0.880	0.742	0.734	0.706	0.785	0.830	0.777	0.788	0.748	0.755	0.807	0.877	0.842	0.831	0.910	0.871	0.813	0.809	0.763	0.802
CPP	0.810	1.000	0.929	0.811	0.699	0.746	0.753	0.768	0.861	0.813	0.850	0.831	0.836	0.847	0.832	0.875	0.833	0.842	0.785	0.787	0.664	0.698	0.816
CS	0.774	0.929	1.000	0.823	0.697	0.709	0.715	0.749	0.886	0.821	0.907	0.777	0.832	0.839	0.827	0.845	0.829	0.781	0.724	0.752	0.580	0.602	0.725
CX	0.880	0.811	0.823	1.000	0.733	0.691	0.720	0.709	0.846	0.782	0.851	0.712	0.754	0.735	0.802	0.776	0.805	0.853	0.785	0.768	0.674	0.714	0.781
FP1	0.742	0.699	0.697	0.733	1.000	0.924	0.789	0.871	0.771	0.780	0.764	0.785	0.798	0.754	0.768	0.759	0.733	0.710	0.641	0.624	0.587	0.574	0.717
FP2	0.734	0.746	0.709	0.691	0.924	1.000	0.750	0.825	0.787	0.744	0.758	0.748	0.764	0.732	0.764	0.761	0.716	0.728	0.677	0.681	0.627	0.639	0.739
FP3	0.706	0.753	0.715	0.720	0.789	0.750	1.000	0.802	0.685	0.764	0.719	0.728	0.800	0.790	0.753	0.738	0.746	0.690	0.663	0.631	0.483	0.569	0.679
FP4	0.785	0.768	0.749	0.709	0.871	0.825	0.802	1.000	0.773	0.780	0.771	0.810	0.825	0.869	0.844	0.813	0.785	0.782	0.709	0.666	0.613	0.625	0.675
FR	0.830	0.861	0.886	0.846	0.771	0.787	0.685	0.773	1.000	0.806	0.946	0.748	0.747	0.789	0.863	0.798	0.799	0.809	0.723	0.734	0.633	0.689	0.802
FS	0.777	0.813	0.821	0.782	0.780	0.744	0.764	0.780	0.806	1.000	0.840	0.808	0.836	0.848	0.838	0.823	0.836	0.805	0.777	0.807	0.746	0.616	0.770
GS	0.788	0.850	0.907	0.851	0.764	0.758	0.719	0.771	0.946	0.840	1.000	0.770	0.802	0.801	0.852	0.820	0.819	0.796	0.734	0.737	0.629	0.677	0.762
NFP1	0.748	0.831	0.777	0.712	0.785	0.748	0.728	0.810	0.748	0.808	0.770	1.000	0.909	0.836	0.789	0.876	0.819	0.743	0.707	0.712	0.662	0.610	0.689
NFP2	0.755	0.836	0.832	0.754	0.798	0.764	0.800	0.825	0.747	0.836	0.802	0.909	1.000	0.877	0.797	0.874	0.859	0.747	0.748	0.732	0.627	0.589	0.668
NFP3	0.807	0.847	0.839	0.735	0.754	0.732	0.790	0.869	0.789	0.848	0.801	0.836	0.877	1.000	0.918	0.872	0.837	0.823	0.755	0.760	0.685	0.684	0.718
NFP4	0.877	0.832	0.827	0.802	0.768	0.764	0.753	0.844	0.863	0.838	0.852	0.789	0.797	0.918	1.000	0.872	0.872	0.865	0.787	0.764	0.741	0.756	0.753
NFP5	0.842	0.875	0.845	0.776	0.759	0.761	0.738	0.813	0.798	0.823	0.820	0.876	0.874	0.872	0.872	1.000	0.883	0.812	0.755	0.779	0.767	0.690	0.736
NFP6	0.831	0.833	0.829	0.805	0.733	0.716	0.746	0.785	0.799	0.836	0.819	0.819	0.859	0.837	0.872	0.883	1.000	0.818	0.742	0.754	0.726	0.650	0.738
RA	0.910	0.842	0.781	0.853	0.710	0.728	0.690	0.782	0.809	0.805	0.796	0.743	0.747	0.823	0.865	0.812	0.818	1.000	0.890	0.853	0.818	0.788	0.834
TA1	0.871	0.785	0.724	0.785	0.641	0.677	0.663	0.709	0.723	0.777	0.734	0.707	0.748	0.755	0.787	0.755	0.742	0.890	1.000	0.876	0.767	0.778	0.798
TA2	0.813	0.787	0.752	0.768	0.624	0.681	0.631	0.666	0.734	0.807	0.737	0.712	0.732	0.760	0.764	0.779	0.754	0.853	0.876	1.000	0.772	0.741	0.782
TA3	0.809	0.664	0.580	0.674	0.587	0.627	0.483	0.613	0.633	0.746	0.629	0.662	0.627	0.685	0.741	0.767	0.726	0.818	0.767	0.772	1.000	0.757	0.754
TA4	0.763	0.698	0.602	0.714	0.574	0.639	0.569	0.625	0.689	0.616	0.677	0.610	0.589	0.684	0.756	0.690	0.650	0.788	0.778	0.741	0.757	1.000	0.794
TS	0.802	0.816	0.725	0.781	0.717	0.739	0.679	0.675	0.802	0.770	0.762	0.689	0.668	0.718	0.753	0.736	0.738	0.834	0.798	0.782	0.754	0.794	1.000

Model implied saturated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.858	0.845	0.848	0.758	0.742	0.703	0.741	0.863	0.823	0.857	0.788	0.801	0.808	0.795	0.813	0.797	0.853	0.770	0.762	0.735	0.730	0.814
CPP	0.858	1.000	0.858	0.861	0.769	0.752	0.713	0.752	0.875	0.835	0.869	0.799	0.813	0.819	0.807	0.825	0.808	0.865	0.781	0.773	0.746	0.741	0.826
CS	0.845	0.858	1.000	0.848	0.758	0.741	0.703	0.741	0.862	0.823	0.856	0.787	0.801	0.807	0.795	0.813	0.797	0.853	0.769	0.762	0.735	0.730	0.813
CX	0.848	0.861	0.848	1.000	0.761	0.744	0.705	0.743	0.865	0.826	0.859	0.790	0.804	0.810	0.798	0.816	0.799	0.856	0.772	0.765	0.738	0.733	0.816
FP1	0.758	0.769	0.758	0.761	1.000	0.903	0.856	0.902	0.773	0.738	0.768	0.785	0.798	0.805	0.793	0.810	0.794	0.764	0.664	0.658	0.635	0.630	0.729
FP2	0.742	0.752	0.741	0.744	0.903	1.000	0.838	0.883	0.756	0.722	0.751	0.768	0.781	0.787	0.775	0.793	0.777	0.748	0.650	0.644	0.621	0.616	0.713
FP3	0.703	0.713	0.703	0.705	0.856	0.838	1.000	0.837	0.717	0.684	0.712	0.728	0.740	0.746	0.735	0.751	0.736	0.709	0.616	0.610	0.588	0.584	0.676
FP4	0.741	0.752	0.741	0.743	0.902	0.883	0.837	1.000	0.756	0.721	0.750	0.767	0.780	0.786	0.775	0.792	0.776	0.747	0.649	0.643	0.620	0.616	0.713
FR	0.863	0.875	0.862	0.865	0.773	0.756	0.717	0.756	1.000	0.840	0.874	0.803	0.817	0.824	0.811	0.829	0.813	0.870	0.785	0.778	0.750	0.745	0.830
FS	0.823	0.835	0.823	0.826	0.738	0.722	0.684	0.721	0.840	1.000	0.834	0.767	0.780	0.786	0.774	0.791	0.776	0.830	0.749	0.742	0.716	0.711	0.792
GS	0.857	0.869	0.856	0.859	0.768	0.751	0.712	0.750	0.874	0.834	1.000	0.798	0.811	0.818	0.806	0.823	0.807	0.864	0.779	0.772	0.745	0.740	0.824
NFP1	0.788	0.799	0.787	0.790	0.785	0.768	0.728	0.767	0.803	0.767	0.798	1.000	0.870	0.877	0.863	0.883	0.865	0.794	0.726	0.719	0.694	0.689	0.758
NFP2	0.801	0.813	0.801	0.804	0.798	0.781	0.740	0.780	0.817	0.780	0.811	0.870	1.000	0.892	0.878	0.898	0.880	0.808	0.738	0.731	0.705	0.700	0.771
NFP3	0.808	0.819	0.807	0.810	0.805	0.787	0.746	0.786	0.824	0.786	0.818	0.877	0.892	1.000	0.885	0.905	0.887	0.814	0.744	0.737	0.711	0.706	0.777
NFP4	0.795	0.807	0.795	0.798	0.793	0.775	0.735	0.775	0.811	0.774	0.806	0.863	0.878	0.885	1.000	0.891	0.874	0.802	0.733	0.726	0.700	0.696	0.765
NFP5	0.813	0.825	0.813	0.816	0.810	0.793	0.751	0.792	0.829	0.791	0.823	0.883	0.898	0.905	0.891	1.000	0.893	0.820	0.749	0.742	0.716	0.711	0.782
NFP6	0.797	0.808	0.797	0.799	0.794	0.777	0.736	0.776	0.813	0.776	0.807	0.865	0.880	0.887	0.874	0.893	1.000	0.803	0.734	0.727	0.702	0.697	0.767
RA	0.853	0.865	0.853	0.856	0.764	0.748	0.709	0.747	0.870	0.830	0.864	0.794	0.808	0.814	0.802	0.820	0.803	1.000	0.776	0.769	0.741	0.736	0.821
TA1	0.770	0.781	0.769	0.772	0.664	0.650	0.616	0.649	0.785	0.749	0.779	0.726	0.738	0.744	0.733	0.749	0.734	0.776	1.000	0.874	0.843	0.837	0.741
TA2	0.762	0.773	0.762	0.765	0.658	0.644	0.610	0.643	0.778	0.742	0.772	0.719	0.731	0.737	0.726	0.742	0.727	0.769	0.874	1.000	0.835	0.829	0.734
TA3	0.735	0.746	0.735	0.738	0.635	0.621	0.588	0.620	0.750	0.716	0.745	0.694	0.705	0.711	0.700	0.716	0.702	0.741	0.843	0.835	1.000	0.799	0.707

TA4	0.730	0.741	0.730	0.733	0.630	0.616	0.584	0.616	0.745	0.711	0.740	0.689	0.700	0.706	0.696	0.711	0.697	0.736	0.837	0.829	0.799	1.000	0.703
TS	0.814	0.826	0.813	0.816	0.729	0.713	0.676	0.713	0.830	0.792	0.824	0.758	0.771	0.777	0.765	0.782	0.767	0.821	0.741	0.734	0.707	0.703	1.000

Model implied estimated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.858	0.845	0.848	0.580	0.567	0.537	0.566	0.863	0.823	0.857	0.634	0.644	0.650	0.640	0.654	0.641	0.853	0.770	0.762	0.735	0.730	0.818
CPP	0.858	1.000	0.858	0.861	0.588	0.575	0.545	0.575	0.875	0.835	0.869	0.643	0.654	0.659	0.649	0.663	0.650	0.865	0.781	0.773	0.746	0.741	0.826
CS	0.845	0.858	1.000	0.848	0.579	0.567	0.537	0.566	0.862	0.823	0.856	0.633	0.644	0.649	0.640	0.654	0.641	0.853	0.769	0.762	0.735	0.730	0.813
CX	0.848	0.861	0.848	1.000	0.581	0.569	0.539	0.568	0.865	0.826	0.859	0.636	0.646	0.652	0.642	0.656	0.643	0.856	0.772	0.765	0.738	0.733	0.816
FP1	0.580	0.588	0.579	0.581	1.000	0.903	0.856	0.902	0.591	0.564	0.587	0.547	0.556	0.561	0.552	0.564	0.553	0.584	0.664	0.658	0.635	0.630	0.558
FP2	0.567	0.575	0.567	0.569	0.903	1.000	0.838	0.883	0.578	0.552	0.574	0.535	0.544	0.548	0.540	0.552	0.541	0.572	0.650	0.644	0.621	0.616	0.546
FP3	0.537	0.545	0.537	0.539	0.856	0.838	1.000	0.837	0.548	0.523	0.544	0.507	0.516	0.520	0.512	0.523	0.513	0.542	0.616	0.610	0.588	0.584	0.517
FP4	0.566	0.575	0.566	0.568	0.902	0.883	0.837	1.000	0.578	0.551	0.574	0.534	0.543	0.548	0.539	0.551	0.540	0.571	0.649	0.643	0.620	0.616	0.545
FR	0.863	0.875	0.862	0.865	0.591	0.578	0.548	0.578	1.000	0.840	0.874	0.646	0.657	0.663	0.653	0.667	0.654	0.870	0.785	0.778	0.750	0.745	0.830
FS	0.823	0.835	0.823	0.826	0.564	0.552	0.523	0.551	0.840	1.000	0.834	0.617	0.627	0.632	0.623	0.637	0.624	0.830	0.749	0.742	0.716	0.711	0.792
GS	0.857	0.869	0.856	0.859	0.587	0.574	0.544	0.574	0.874	0.834	1.000	0.642	0.652	0.658	0.648	0.662	0.649	0.864	0.779	0.772	0.745	0.740	0.824
NFP1	0.634	0.643	0.633	0.636	0.547	0.535	0.507	0.534	0.646	0.617	0.642	1.000	0.870	0.877	0.863	0.883	0.865	0.639	0.726	0.719	0.694	0.689	0.610
NFP2	0.644	0.654	0.644	0.646	0.556	0.544	0.516	0.543	0.657	0.627	0.652	0.870	1.000	0.892	0.878	0.898	0.880	0.650	0.738	0.731	0.705	0.700	0.620
NFP3	0.650	0.659	0.649	0.652	0.561	0.548	0.520	0.548	0.663	0.632	0.658	0.877	0.892	1.000	0.885	0.905	0.887	0.655	0.744	0.737	0.711	0.706	0.625
NFP4	0.640	0.649	0.640	0.642	0.552	0.540	0.512	0.539	0.653	0.623	0.648	0.863	0.878	0.885	1.000	0.891	0.874	0.645	0.733	0.726	0.700	0.696	0.616
NFP5	0.654	0.663	0.654	0.656	0.564	0.552	0.523	0.551	0.667	0.637	0.662	0.883	0.898	0.905	0.891	1.000	0.893	0.659	0.749	0.742	0.716	0.711	0.629
NFP6	0.641	0.650	0.641	0.643	0.553	0.541	0.513	0.540	0.654	0.624	0.649	0.865	0.880	0.887	0.874	0.893	1.000	0.646	0.734	0.727	0.702	0.697	0.617
RA	0.853	0.865	0.853	0.856	0.584	0.572	0.542	0.571	0.870	0.830	0.864	0.639	0.650	0.655	0.645	0.659	0.646	1.000	0.776	0.769	0.741	0.736	0.821
TA1	0.770	0.781	0.769	0.772	0.664	0.650	0.616	0.649	0.785	0.749	0.779	0.726	0.738	0.744	0.733	0.749	0.734	0.776	1.000	0.874	0.843	0.837	0.741
TA2	0.762	0.773	0.762	0.765	0.658	0.644	0.610	0.643	0.778	0.742	0.772	0.719	0.731	0.737	0.726	0.742	0.727	0.769	0.874	1.000	0.835	0.829	0.734
TA3	0.735	0.746	0.735	0.738	0.635	0.621	0.588	0.620	0.750	0.716	0.745	0.694	0.705	0.711	0.700	0.716	0.702	0.741	0.843	0.835	1.000	0.799	0.707
TA4	0.730	0.741	0.730	0.733	0.630	0.616	0.584	0.616	0.745	0.711	0.740	0.689	0.700	0.706	0.696	0.711	0.697	0.736	0.837	0.829	0.799	1.000	0.703
TS	0.814	0.826	0.813	0.816	0.558	0.546	0.517	0.545	0.830	0.792	0.824	0.610	0.620	0.625	0.616	0.628	0.617	0.821	0.741	0.734	0.707	0.703	1.000

Empirical covariance matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.810	0.774	0.800	0.742	0.734	0.706	0.785	0.830	0.777	0.788	0.748	0.755	0.807	0.877	0.842	0.831	0.910	0.871	0.833	0.809	0.763	0.802
CPP	0.810	1.000	0.929	0.811	0.699	0.746	0.753	0.768	0.861	0.813	0.850	0.831	0.836	0.847	0.832	0.875	0.833	0.842	0.785	0.787	0.664	0.698	0.816
CS	0.774	0.929	1.000	0.823	0.697	0.709	0.715	0.748	0.886	0.821	0.907	0.777	0.832	0.839	0.827	0.845	0.828	0.781	0.724	0.752	0.580	0.602	0.725
CX	0.800	0.811	0.823	1.000	0.733	0.691	0.720	0.709	0.846	0.782	0.851	0.712	0.754	0.735	0.802	0.776	0.805	0.853	0.785	0.768	0.674	0.714	0.781
FP1	0.742	0.699	0.697	0.733	1.000	0.924	0.789	0.871	0.771	0.780	0.764	0.785	0.798	0.754	0.768	0.759	0.733	0.710	0.641	0.624	0.587	0.574	0.737
FP2	0.734	0.746	0.709	0.691	0.924	1.000	0.750	0.825	0.787	0.744	0.758	0.748	0.764	0.732	0.764	0.761	0.716	0.728	0.677	0.681	0.627	0.639	0.739
FP3	0.706	0.753	0.715	0.720	0.789	0.750	1.000	0.802	0.685	0.764	0.719	0.728	0.800	0.790	0.753	0.738	0.746	0.690	0.663	0.631	0.483	0.569	0.678
FP4	0.785	0.768	0.748	0.709	0.871	0.825	0.802	1.000	0.773	0.780	0.771	0.810	0.825	0.869	0.844	0.813	0.785	0.782	0.709	0.666	0.613	0.625	0.675
FR	0.830	0.861	0.886	0.846	0.771	0.787	0.685	0.773	1.000	0.806	0.946	0.748	0.747	0.789	0.863	0.798	0.799	0.809	0.723	0.734	0.633	0.689	0.802
FS	0.777	0.813	0.821	0.782	0.780	0.744	0.764	0.780	0.806	1.000	0.840	0.808	0.836	0.848	0.838	0.823	0.836	0.805	0.777	0.807	0.746	0.616	0.770
GS	0.788	0.850	0.907	0.851	0.764	0.758	0.719	0.771	0.946	0.840	1.000	0.770	0.802	0.801	0.852	0.820	0.818	0.796	0.734	0.737	0.629	0.677	0.782
NFP1	0.748	0.831	0.777	0.712	0.785	0.748	0.728	0.810	0.748	0.808	0.770	1.000	0.909	0.836	0.789	0.876	0.819	0.743	0.707	0.712	0.662	0.610	0.689
NFP2	0.755	0.836	0.832	0.754	0.798	0.764	0.800	0.825	0.747	0.836	0.802	0.909	1.000	0.877	0.797	0.874	0.859	0.747	0.748	0.732	0.622	0.589	0.668
NFP3	0.807	0.847	0.839	0.735	0.754	0.712	0.790	0.869	0.789	0.848	0.801	0.836	0.877	1.000	0.918	0.872	0.837	0.823	0.755	0.760	0.685	0.684	0.718
NFP4	0.877	0.832	0.827	0.802	0.768	0.764	0.753	0.844	0.863	0.838	0.852	0.789	0.797	0.918	1.000	0.872	0.872	0.865	0.787	0.764	0.741	0.756	0.753
NFP5	0.842	0.875	0.845	0.776	0.759	0.761	0.738	0.813	0.798	0.823	0.820	0.876	0.874	0.872	0.872	1.000	0.883	0.812	0.755	0.779	0.767	0.690	0.736
NFP6	0.831	0.833	0.829	0.805	0.733	0.716	0.746	0.785	0.799	0.836	0.819	0.819	0.859	0.837	0.872	0.883	1.000	0.818	0.742	0.754	0.726	0.650	0.738
RA	0.910	0.842	0.781	0.853	0.710	0.728	0.690	0.782	0.809	0.805	0.796	0.743	0.747	0.823	0.865	0.812	0.818	1.000	0.890	0.853	0.818	0.788	0.834
TA1	0.871	0.785	0.724	0.785	0.641	0.677	0.663	0.709	0.723	0.777	0.734	0.707	0.748	0.755	0.787	0.755	0.742	0.890	1.000	0.876	0.767	0.778	0.798
TA2	0.833	0.787	0.752	0.768	0.624	0.681	0.631	0.666	0.734	0.807	0.737	0.712	0.732	0.760	0.764	0.779	0.754	0.853	0.876	1.000	0.772	0.741	0.782
TA3	0.809	0.664	0.580	0.674	0.587	0.627	0.483	0.613	0.633	0.746	0.629	0.662	0.627	0.685	0.741	0.767	0.726	0.818	0.767	0.772	1.000	0.757	0.754
TA4	0.763	0.698	0.602	0.714	0.574	0.639	0.569	0.625	0.689	0.616	0.677	0.610	0.589	0.684	0.756	0.690	0.650	0.788	0.778	0.741	0.757	1.000	0.794
TS	0.802	0.816	0.725	0.781	0.737	0.739	0.678	0.675	0.802	0.770	0.762	0.689	0.668	0.718	0.753	0.736	0.738	0.834	0.788	0.782	0.754	0.794	1.000

Appendix J:

PLS-SEM Algorithm's Path Analysis from SmartPLS 4.1

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

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Final results

Quality criteria

R-square

Overview

	R-square	uare adjusted
FP	0.542	0.539
NFP	0.699	0.697
TA	0.794	0.793

Construct reliability and validity

Overview

	Cronbach's alpha	ability (rho_a)	ability (rho_c)	tracted (AVE)
FP	0.950	0.953	0.964	0.871
NFP	0.973	0.975	0.978	0.883
TA	0.935	0.938	0.953	0.837
TDE	0.977	0.979	0.980	0.845

Discriminant validity

Fornell-Larcker criterion

	FP	NFP	TA	TDE
FP	0.933			
NFP	0.883	0.940		
TA	0.736	0.836	0.915	
TDE	0.858	0.926	0.891	0.919

Inner model - Matrix

	FP	NFP	TA	TDE
FP				
NFP				
TA	1.000	1.000		
TDE			1.000	

Inner model - List

	VIF
TA -> FP	1.000
TA -> NFP	1.000
TDE -> TA	1.000

Model fit

Fit summary

	Saturated model	imated model
SRMR	0.046	0.125
d_ULS	0.573	4.284
d_G	2.354	2.845
Chi-square	1488.099	1666.805
NFI	0.766	0.738

Model selection criteria

Matrix

	tion information criterion
FP	-107.986
NFP	-171.019
TA	-228.102

Algorithm

Setting

Data file

	Setting
Data file	orm - Actual Filter 150 pax
Weighting vector	

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^{-7}
Type of results	Standardized
Use Lohmoller settings?	No
Weighting scheme	Path

Construct outer weighting mode

	Setting
FP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TDE	AUTOMATIC

Stop criterion changes

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TR
Iteration 0	0.121	0.121	0.121	0.121	0.268	0.268	0.268	0.268	0.121	0.121	0.121	0.177	0.177	0.177	0.177	0.177	0.177	0.121	0.273	0.273	0.273	0.273	0.121
Iteration 1	0.132	0.119	0.108	0.120	0.260	0.281	0.251	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.189	0.185	0.178	0.136	0.289	0.286	0.258	0.258	0.127
Iteration 2	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127
Iteration 3	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127
Iteration 4	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127
Iteration 5	0.132	0.119	0.108	0.120	0.260	0.281	0.252	0.280	0.113	0.120	0.113	0.167	0.167	0.179	0.188	0.185	0.178	0.136	0.289	0.286	0.260	0.258	0.127

Posthoc minimum sample size

List

	Path coefficient	% power 80%	% power 85%	% power 90%	% power 95%
TA -> FP	0.736	19.000	12.000	25.000	16.000
TA -> NFP	0.836	15.000	9.000	19.000	13.000
TDE -> TA	0.891	13.000	8.000	17.000	11.000

Execution log

Reading score matrix of complete data set

Calculating full data set.

Running PLS-SEM iterations, at most 3000.

Calculating report matrices and charts.

All calculations done.

Model and data

Inner model

	FP	NFP	TA	TDE
FP				
NFP				
TA	1.000	1.000		
TDE			1.000	

Outer model

	FP	NFP	TA	TDE
CP				-1.000
CPP				-1.000
CS				-1.000
CX				-1.000
FP1	-1.000			
FP2	-1.000			
FP3	-1.000			
FP4	-1.000			
FR				-1.000

FS				-1.000
GS				-1.000
NFP1		-1.000		
NFP2		-1.000		
NFP3		-1.000		
NFP4		-1.000		
NFP5		-1.000		
NFP6		-1.000		
RA				-1.000
TA1			-1.000	
TA2			-1.000	
TA3			-1.000	
TA4			-1.000	
TS				-1.000

Indicator data (original)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
1	3.830	3.800	3.750	4.750	3.000	3.000	3.000	3.000	3.670	3.330	4.200	3.000	4.000	3.000	4.000	3.000	5.000	4.500	5.000	4.000	4.000	4.000	4.170
2	5.000	3.600	4.000	5.000	4.000	4.000	4.000	4.000	4.000	3.000	3.800	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
3	4.330	4.200	2.750	3.000	3.000	4.000	3.000	5.000	4.000	2.330	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
4	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	4.000	3.000	3.000	3.000	4.000	2.750	2.000	2.000	3.000	3.000	3.000
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.670	2.670	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.670
6	3.000	3.000	1.250	3.000	1.000	2.000	2.000	2.000	1.000	2.330	1.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	5.000	5.000	1.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	3.000	2.670	3.400	4.000	4.000	4.000	3.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	2.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.000	2.670	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.830
9	4.330	4.400	4.500	3.750	2.000	2.000	3.000	4.000	2.670	5.000	2.800	5.000	5.000	5.000	4.000	5.000	5.000	4.250	5.000	5.000	5.000	3.000	3.330
10	4.170	4.400	4.250	4.000	5.000	5.000	5.000	4.000	4.330	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	4.000	4.000	5.000	4.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.000	2.670	3.600	4.000	4.000	3.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	5.000	4.500
12	4.000	3.800	4.000	4.000	3.000	4.000	3.000	4.000	4.000	2.330	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	3.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	3.000	3.000	3.330	2.670	3.600	4.000	4.000	3.000	3.000	3.000	3.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	4.000	4.000	4.000	3.000	3.000	2.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	4.000	4.000	4.000	4.000
15	3.170	3.000	3.000	3.000	5.000	5.000	5.000	5.000	3.670	3.000	3.400	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	3.000	4.000	3.000
16	4.000	4.000	4.000	4.250	4.000	4.000	4.000	4.000	4.000	2.670	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	4.000	4.330	3.000	3.000	3.000	4.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.330	1.000	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	4.000	5.000	5.000	3.000	4.000	3.670	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.000
20	5.000	4.600	4.500	4.500	3.000	3.000	5.000	4.000	3.670	4.000	4.000	3.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	3.000	3.500	3.750	3.000	3.000	3.000	3.000	2.000	1.670	2.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	3.000	3.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.670	3.330	2.400	3.000	3.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	3.600	3.250	5.000	4.000	3.000	5.000	3.000	3.000	4.670	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.670	3.600	3.250	3.250	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	4.000	3.000	4.000	3.000	3.500
25	3.170	3.000	2.500	3.750	3.000	3.000	4.000	3.000	2.670	2.670	2.000	3.000	3.000	3.000	3.000	2.000	4.000	4.000	3.000	4.000	3.000	3.000	3.500
26	5.000	3.200	3.250	4.250	4.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	4.670
27	3.330	3.000	3.000	3.500	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	3.000	2.000	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000
30	3.830	3.000	1.000	4.250	5.000	5.000	5.000	4.000	2.000	3.000	1.000	3.000	3.000	2.000	2.000	3.000	3.000	4.000	4.000	4.000	5.000	4.000	4.830
31	4.000	3.600	2.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
32	4.000	4.400	3.250	3.750	3.000	3.000	4.000	4.000	2.670	1.670	1.000	4.000	4.000	3.000	3.000	4.000	4.000	3.750	4.000	3.000	3.000	4.000	4.000
33	3.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000
34	2.500	3.400	3.250	3.750	3.000	3.000	3.000	2.000	3.330	1.670	3.000	3.000	3.000	2.000	2.000	3.000	3.000	2.250	2.000	4.000	2.000	3.000	3.000
35	4.170	4.200	3.250	3.750	4.000	4.000	5.000	4.000	3.000	3.330	3.000	4.000	4.000	4.000	4.000	4.000	5.000	3.750	4.000	4.000	5.000	5.000	4.830
36	4.500	4.000	4.000	4.500	4.000	4.000	4.000	4.000	4.000	4.000	3.400	4.000	4.000	4.000	4.000	4.000	4.000	4.250	4.000	4.000	5.000	5.000	4.000
37	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
38	4.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.500	4.000	4.000	4.000	4.000	3.170
39	4.000	4.000	3.500	4.000	4.000	4.000	4.000	4.000	3.000	2.330	2.000	3.000	3.000	4.000	4.000	3.000	3.000	3.750	3.000	3.000	3.000	3.000	3.000
40	5.000	4.600	4.000	4.000	4.000	4.000	4.000	4.000	3.670	2.330	3.400	4.000	4.000	5.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000
41	5.000	3.400	3.000	5.000	2.000	2.000	3.000	2.000	4.330	3.000	3.400	4.000	3.000	3.000	4.000	3.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
42	4.830	4.800	4.750	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
43	3.000	3.000	3.000	3.250	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	4.000	4.000	5.000	4.000	4.170
44	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
45	4.000	3.200	3.000	4.000	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	3.000	3.000	4.000	4.000	3.670
46	4.170	4.800	3.500	4.500	3.000	3.000	5.000	3.000	4.000	4.330	3.800	5.000	4.000	5.000	5.000	5.000	4.000	4.250	4.000	4.000	5.000	5.000	5.000
47	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
48	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
49	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
50	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
51	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
52	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
53	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
54	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
55	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
56	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
57	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
58	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
59	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
61	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
62	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
63	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
64	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
65	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
66	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
67	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
68	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
69	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
70	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
71	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
72	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
73	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
74	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
75	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
76	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
77	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
78	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
79	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
80	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
81	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
82	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
83	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
84	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
85	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
86	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
87	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
88	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
89	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
90	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
91	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
92	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
93	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
94	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
95	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
96	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
97	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
98	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
99	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
100	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
101	3.000	5.000	4.500	3.250	3.000	4.000	5.000	3.000	2.670	4.000	2.200	4.000	4.000	4.000	3.000	3.000	3.000	3.750	5.000	5.000	3.000	4.000	4.830
102	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
103	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
104	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
105	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
106	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
107	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
108	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
109	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
110	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
111	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
112	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
113	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
114	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
115	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
116	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
117	3.000	2.600	2.500	4.000	4.000	3.000	4.000	4.000	2.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	3.250	3.000	3.000	3.000	4.000	2.830
118	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
119	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
120	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
121	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
122	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
123	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
124	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
125	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
126	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
127	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
128	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
129	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
130	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
131	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
132	5.000	5.000	5.000	5.000	3.000	5.000	5.000	3.000	5.000	5.000	5.000	3.000	3.000	3.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
133	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
134	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
135	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
136	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
137	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
138	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
139	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
140	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
141	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
142	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
143	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
144	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
145	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
146	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
147	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
148	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
149	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

MV descriptives

	Mean	Median	Observed min	Observed max	ard deviation	xcess kurtosis	Skewness	rvations used	s test statistic	Mises p value
CP	4.655	5.000	2.500	5.000	0.635	1.573	-1.683	150.000	5.718	0.000
CPP	4.617	5.000	2.600	5.000	0.659	0.948	-1.526	150.000	5.034	0.000
CS	4.518	5.000	1.000	5.000	0.832	2.688	-1.738	150.000	4.915	0.000
CX	4.680	5.000	3.000	5.000	0.564	1.347	-1.579	150.000	5.462	0.000
FP1	4.473	5.000	1.000	5.000	0.900	2.075	-1.640	150.000	5.014	0.000
FP2	4.513	5.000	1.000	5.000	0.854	1.980	-1.662	150.000	5.264	0.000
FP3	4.613	5.000	2.000	5.000	0.746	2.419	-1.852	150.000	6.063	0.000
FP4	4.500	5.000	2.000	5.000	0.847	1.024	-1.498	150.000	5.017	0.000
FR	4.507	5.000	1.000	5.000	0.853	2.078	-1.677	150.000	4.914	0.000
FS	4.398	5.000	1.000	5.000	1.018	0.553	-1.389	150.000	5.385	0.000
GS	4.403	5.000	1.000	5.000	1.009	1.609	-1.583	150.000	4.798	0.000
NFP1	4.567	5.000	3.000	5.000	0.734	0.226	-1.357	150.000	5.353	0.000
NFP2	4.547	5.000	3.000	5.000	0.745	0.033	-1.287	150.000	5.099	0.000
NFP3	4.547	5.000	2.000	5.000	0.788	1.250	-1.559	150.000	5.265	0.000
NFP4	4.567	5.000	2.000	5.000	0.770	1.631	-1.645	150.000	5.370	0.000
NFP5	4.593	5.000	2.000	5.000	0.731	1.116	-1.569	150.000	5.707	0.000
NFP6	4.633	5.000	3.000	5.000	0.667	1.091	-1.587	150.000	5.849	0.000
RA	4.668	5.000	2.250	5.000	0.595	2.372	-1.753	150.000	5.348	0.000
TA1	4.647	5.000	2.000	5.000	0.694	2.853	-1.928	150.000	6.195	0.000
TA2	4.680	5.000	2.000	5.000	0.614	3.236	-1.936	150.000	6.086	0.000
TA3	4.713	5.000	2.000	5.000	0.636	3.789	-2.180	150.000	7.329	0.000
TA4	4.727	5.000	3.000	5.000	0.599	2.947	-2.064	150.000	7.374	0.000
TS	4.655	5.000	1.670	5.000	0.694	4.225	-2.160	150.000	5.952	0.000

Indicator data (standardized)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
1	-1.299	-1.240	-0.924	0.124	-1.638	-1.771	-2.161	-1.772	-0.982	-1.049	-0.201	-2.134	-0.734	-1.962	-0.736	-2.179	0.549	-0.283	0.509	-1.107	-1.122	-1.213	-0.698
2	0.542	-1.543	-0.623	0.568	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.597	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	0.509	-1.107	-1.122	-1.213	-0.943
3	-0.512	-0.633	-2.126	-2.981	-1.638	-0.601	-2.161	0.591	-0.594	-2.031	-1.787	0.590	-2.077	-0.694	-0.736	-0.811	-0.949	0.137	-0.932	-1.107	0.451	0.456	0.253
4	-2.606	-2.453	-1.826	-2.981	-0.526	-1.771	-0.822	-1.772	-1.767	-1.373	-1.390	-0.772	-0.734	-1.962	-2.036	-2.179	-0.949	-3.222	-3.813	-4.361	-2.694	-2.883	-2.383
5	-1.032	-0.936	-0.623	-1.207	-1.638	-0.601	-0.822	-0.591	0.192	-1.697	-0.399	-2.134	-0.734	-0.694	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	-1.213	-1.418
6	-2.606	-2.453	-3.930	-2.981	-3.861	-2.942	-3.501	-2.953	-4.113	-2.031	-3.373	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	0.456	-4.298
7	-2.086	-0.330	0.579	-0.763	-3.861	-4.113	0.518	-1.772	-1.767	-1.697	-0.994	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.542	-2.372	-1.107	-2.694	-2.883	-3.578
8	-1.819	-0.936	-0.924	-1.207	-0.526	-0.601	-3.501	-2.953	-1.767	-1.697	-1.192	0.590	-0.734	-3.231	-3.335	0.556	-0.949	-1.542	-2.372	-1.107	0.451	-2.883	-1.187
9	-0.512	-0.330	-0.022	-1.650	-2.749	-2.942	-2.161	-0.591	-2.155	0.592	-1.589	0.590	0.609	0.575	-0.736	0.556	0.549	-0.703	0.509	0.521	0.451	-2.883	-1.907
10	-0.764	-0.330	-0.323	-1.207	0.585	0.570	0.518	-0.591	-0.207	0.592	-0.399	0.590	0.609	0.575	0.563	0.556	0.549	-1.122	-0.932	-1.107	0.451	-1.213	-0.223
11	-1.032	-0.633	-0.924	-1.207	-1.638	-1.771	-0.822	-1.772	-0.594	-1.697	-0.796	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	0.456	-0.223
12	-1.032	-1.240	-0.623	-1.207	-1.638	-0.601	-2.161	-0.591	-0.594	-2.031	-0.597	-2.134	-2.077	-0.694	0.563	-0.811	-0.949	-0.703	-2.372	-1.107	0.451	0.456	-0.943
13	-1.551	-0.936	-1.224	-1.207	-1.638	-0.601	-2.161	-1.772	-1.380	-1.697	-0.796	-0.772	-0.734	-1.962	-2.036	-2.179	-2.447	-0.703	0.509	0.521	-1.122	0.456	-0.698
14	-2.086	-1.240	-1.525	-1.650	-1.638	-0.601	-0.822	-0.591	-1.767	-1.373	-1.589	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.962	-2.372	-1.107	-1.122	-1.213	-0.943
15	-2.338	-2.453	-1.826	-2.981	0.585	0.570	0.518	0.591	-0.982	-1.373	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-2.447	-1.122	-0.932	-1.107	-2.694	-1.213	-2.383
16	-1.032	-0.936	-0.623	-0.763	-0.526	-0.601	-0.822	-0.591	-0.594	-1.697	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-0.703	-0.932	-1.107	-1.122	0.456	-0.943
17	-1.299	-1.543	-1.224	-1.207	-0.526	-1.771	-0.822	-0.591	-0.594	-0.067	-1.390	-2.134	-2.077	-0.694	-0.736	-2.179	-0.949	-0.703	-2.372	-1.107	-1.122	-2.883	-1.187
18	-1.032	-0.330	-0.623	0.568	-1.638	-1.771	-0.822	-1.772	-0.207	-3.338	-0.201	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-0.703	-0.932	-2.734	-2.694	0.456	-0.698
19	-1.032	-0.936	-0.623	-1.207	-0.526	0.570	0.518	-1.772	-0.594	-0.715	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
20	0.542	-0.026	-0.022	-0.319	-1.638	-1.771	0.518	-0.591	-0.982	-0.391	-0.399	-2.134	0.609	0.575	-0.736	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
21	-2.606	-2.453	-1.224	-1.650	-1.638	-1.771	-2.161	-1.772	-2.940	-2.680	-2.382	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-2.372	-2.734	-1.122	-1.213	-2.383
22	-0.512	-0.330	-0.323	-0.763	-1.638	-0.601	-3.501	-2.953	0.192	-1.049	-1.985	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	-0.283	-0.932	0.521	0.451	0.456	0.497
23	0.542	-1.543	-1.525	0.568	-0.526	-1.771	0.518	-1.772	-1.767	0.267	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
24	-1.551	-1.543	-1.525	-2.537	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-0.932	-2.734	-1.122	-2.883	-1.663
25	-2.338	-2.453	-2.427	-1.650	-1.638	-1.771	-0.822	-1.772	-2.155	-1.697	-2.382	-2.134	-2.077	-1.962	-2.036	-3.547	-0.949	-1.122	-2.372	-1.107	-2.694	-2.883	-1.663
26	0.542	-2.150	-1.525	-0.763	-0.526	-0.601	-0.822	-0.591	-1.767	-1.373	-1.390	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	0.557	0.509	0.521	0.451	0.456	0.022
27	-2.086	-2.453	-1.826	-2.094	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-3.222	-2.372	-1.107	-2.694	-1.213	-2.138
28	-0.512	-0.633	-0.924	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-2.077	-0.694	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	0.456	-0.698
29	0.542	-1.846	-1.826	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.355	-2.382	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	-2.883	-3.823
30	-1.299	-2.453	-4.230	-0.763	0.585	0.570	0.518	-0.591	-2.940	-1.373	-3.373	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	-1.213	0.253
31	-1.032	-1.543	-2.126	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
32	-1.032	-0.330	-1.525	-1.650	-1.638	-1.771	-0.822	-0.591	-2.155	-2.680	-3.373	-0.772	-0.734	-1.962	-2.036	-0.811	-0.949	-1.542	-0.932	-2.734	-2.694	-1.213	-0.943
33	-2.606	-0.936	-0.623	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.373	-0.399	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-2.372	-2.734	-2.694	-2.883	-0.943
34	-3.393	-1.846	-1.525	-1.650	-1.638	-1.771	-2.161	-2.953	-1.380	-2.680	-1.390	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-4.061	-3.813	-1.107	-4.266	-2.883	-2.383
35	-0.764	-0.633	-1.525	-1.650	-0.526	-0.601	0.518	-0.591	-1.767	-1.049	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.542	-0.932	-1.107	0.451	0.456	0.253
36	-0.245	-0.936	-0.623	-0.319	-0.526	-0.601	-0.822	-0.591	-0.594	-0.391	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-0.703	-0.932	-1.107	0.451	0.456	-0.943
37	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
38	-1.032	-2.453	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.049	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.962	-0.932	-1.107	-1.122	-1.213	-2.138
39	-1.032	-0.936	-1.224	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.031	-2.382	-2.134	-2.077	-0.694	-0.736	-2.179	-2.447	-1.542	-2.372	-2.734	-2.694	-2.883	-2.383
40	0.542	-0.026	-0.623	-1.207	-0.526	-0.601	-0.822	-0.591	-0.982	-2.031	-0.994	-0.772	-0.734	0.575	0.563	0.556	-0.949	0.557	0.509	0.521	0.451	0.456	0.497
41	0.542	-1.846	-1.826	0.568	-2.749	-2.942	-2.161	-2.953	-0.207	-1.373	-0.994	-0.772	-2.077	-1.962	-0.736	-2.179	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
42	0.275	0.277	0.279	0.568	-0.526	-1.771	-0.822	0.591	0.579	0.592	0.592	-0.772	-2.077	-0.694	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
43	-2.606	-2.453	-1.826	-2.537	-1.638	-1.771	-2.161	-1.772	-1.767	-0.391	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-0.932	-1.107	0.451	-1.213	-0.698
44	-2.606	-2.453	-1.826	-2.981	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.802	-2.372	-2.734	-2.694	-2.883	-2.383
45	-1.032	-2.150	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-2.372	-2.734	-1.122	-1.213	-1.418
46	-0.764	0.277	-1.224	-0.319	-1.638	-1.771	0.518	-1.772	-0.594	-0.067	-0.597	0.590	-0.734	0.575	0.563	0.556	-0.949	-0.703	-0.932	-1.107	0.451	0.456	0.497
47	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
48	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
49	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
50	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
51	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
52	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
53	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
54	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
55	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
56	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
57	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
58	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
59	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
60	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
61	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
62	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
63	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
64	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
65	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
66	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
67	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
68	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
69	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
70	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
71	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
72	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
73	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
74	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
75	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
76	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
77	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
78	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
79	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
80	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
81	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
82	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
83	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
84	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
85	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
86	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
87	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
88	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
89	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
90	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
91	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
92	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
93	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
94	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
95	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
96	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
97	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
98	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
99	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
100	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
101	-2.606	0.580	-0.022	-2.537	-1.638	-0.601	0.518	-1.772	-2.155	-0.391	-2.184	-0.772	-0.734	-0.694	-2.036	-2.179	-2.447	-1.542	0.509	0.521	-2.694	-1.213	0.253
102	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
103	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
104	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
105	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
106	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
107	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
108	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
109	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
110	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
111	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
112	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
113	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
114	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
115	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
116	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
117	-2.606	-3.060	-2.427	-1.207	-0.526	-1.771	-0.822	-0.591	-2.940	-1.373	-2.382	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-2.382	-2.372	-2.734	-2.694	-1.213	-2.627
118	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
119	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
120	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
121	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
122	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
123	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
124	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
125	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
126	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
127	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
128	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
129	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

130	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
131	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
132	0.542	0.580	0.579	0.568	-1.638	0.570	0.518	-1.772	0.579	0.592	0.592	-2.134	-2.077	-1.962	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
133	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
134	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
135	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
136	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
137	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
138	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
139	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
140	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
141	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
142	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
143	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
144	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
145	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
146	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
147	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
148	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
149	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

Indicator data (correlations)

Empirical correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.810	0.774	0.880	0.742	0.734	0.706	0.785	0.830	0.777	0.788	0.748	0.755	0.807	0.877	0.842	0.831	0.910	0.871	0.813	0.809	0.763	0.802
CPP	0.810	1.000	0.929	0.811	0.699	0.746	0.753	0.768	0.861	0.813	0.850	0.831	0.836	0.847	0.832	0.875	0.833	0.842	0.785	0.787	0.664	0.698	0.816
CS	0.774	0.929	1.000	0.823	0.697	0.709	0.715	0.749	0.886	0.821	0.907	0.777	0.832	0.839	0.827	0.845	0.829	0.781	0.724	0.752	0.580	0.602	0.725
CX	0.880	0.811	0.823	1.000	0.733	0.691	0.720	0.709	0.846	0.782	0.851	0.712	0.754	0.735	0.802	0.776	0.805	0.853	0.785	0.768	0.674	0.714	0.781
FP1	0.742	0.699	0.697	0.733	1.000	0.924	0.789	0.871	0.771	0.780	0.764	0.785	0.798	0.754	0.768	0.759	0.733	0.710	0.641	0.624	0.587	0.574	0.717
FP2	0.734	0.746	0.709	0.691	0.924	1.000	0.750	0.825	0.787	0.744	0.758	0.748	0.764	0.732	0.764	0.761	0.716	0.728	0.677	0.681	0.627	0.639	0.739
FP3	0.706	0.753	0.715	0.720	0.789	0.750	1.000	0.802	0.685	0.764	0.719	0.728	0.800	0.790	0.753	0.738	0.746	0.690	0.663	0.631	0.483	0.569	0.679
FP4	0.785	0.768	0.749	0.709	0.871	0.825	0.802	1.000	0.773	0.780	0.771	0.810	0.825	0.869	0.844	0.813	0.785	0.782	0.709	0.666	0.613	0.625	0.675
FR	0.830	0.861	0.886	0.846	0.771	0.787	0.685	0.773	1.000	0.806	0.946	0.748	0.747	0.789	0.863	0.798	0.799	0.809	0.723	0.734	0.633	0.689	0.802
FS	0.777	0.813	0.821	0.782	0.780	0.744	0.764	0.780	0.806	1.000	0.840	0.808	0.836	0.848	0.838	0.823	0.836	0.805	0.777	0.807	0.746	0.616	0.770
GS	0.788	0.850	0.907	0.851	0.764	0.758	0.719	0.771	0.946	0.840	1.000	0.770	0.802	0.801	0.852	0.820	0.819	0.796	0.734	0.737	0.629	0.677	0.762
NFP1	0.748	0.831	0.777	0.712	0.785	0.748	0.728	0.810	0.748	0.808	0.770	1.000	0.909	0.836	0.789	0.876	0.819	0.743	0.707	0.712	0.662	0.610	0.689
NFP2	0.755	0.836	0.832	0.754	0.798	0.764	0.800	0.825	0.747	0.836	0.802	0.909	1.000	0.877	0.797	0.874	0.859	0.747	0.748	0.732	0.627	0.589	0.668
NFP3	0.807	0.847	0.839	0.735	0.754	0.732	0.790	0.869	0.789	0.848	0.801	0.836	0.877	1.000	0.918	0.872	0.837	0.823	0.755	0.760	0.685	0.684	0.718
NFP4	0.877	0.832	0.827	0.802	0.768	0.764	0.753	0.844	0.863	0.838	0.852	0.789	0.797	0.918	1.000	0.872	0.872	0.865	0.787	0.764	0.741	0.756	0.753
NFP5	0.842	0.875	0.845	0.776	0.759	0.761	0.738	0.813	0.798	0.823	0.820	0.876	0.874	0.872	0.872	1.000	0.883	0.812	0.755	0.779	0.767	0.690	0.736
NFP6	0.831	0.833	0.829	0.805	0.733	0.716	0.746	0.785	0.799	0.836	0.819	0.819	0.859	0.837	0.872	0.883	1.000	0.818	0.742	0.754	0.726	0.650	0.738
RA	0.910	0.842	0.781	0.853	0.710	0.728	0.690	0.782	0.809	0.805	0.796	0.743	0.747	0.823	0.865	0.812	0.818	1.000	0.890	0.853	0.818	0.788	0.834
TA1	0.871	0.785	0.724	0.785	0.641	0.677	0.663	0.709	0.723	0.777	0.734	0.707	0.748	0.755	0.787	0.755	0.742	0.890	1.000	0.876	0.767	0.778	0.798
TA2	0.813	0.787	0.752	0.768	0.624	0.681	0.631	0.666	0.734	0.807	0.737	0.712	0.732	0.760	0.764	0.779	0.754	0.853	0.876	1.000	0.772	0.741	0.782
TA3	0.809	0.664	0.580	0.674	0.587	0.627	0.483	0.613	0.633	0.746	0.629	0.662	0.627	0.685	0.741	0.767	0.726	0.818	0.767	0.772	1.000	0.757	0.754
TA4	0.763	0.698	0.602	0.714	0.574	0.639	0.569	0.625	0.689	0.616	0.677	0.610	0.589	0.684	0.756	0.690	0.650	0.788	0.778	0.741	0.757	1.000	0.794
TS	0.802	0.816	0.725	0.781	0.717	0.739	0.679	0.675	0.802	0.770	0.762	0.689	0.668	0.718	0.753	0.736	0.738	0.834	0.798	0.782	0.754	0.794	1.000

Model implied saturated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.858	0.845	0.848	0.758	0.742	0.703	0.741	0.863	0.823	0.857	0.788	0.801	0.808	0.795	0.813	0.797	0.853	0.770	0.762	0.735	0.730	0.814
CPP	0.858	1.000	0.858	0.861	0.769	0.752	0.713	0.752	0.875	0.835	0.869	0.799	0.813	0.819	0.807	0.825	0.808	0.865	0.781	0.773	0.746	0.741	0.826
CS	0.845	0.858	1.000	0.848	0.758	0.741	0.703	0.741	0.862	0.823	0.856	0.787	0.801	0.807	0.795	0.813	0.797	0.853	0.769	0.762	0.735	0.730	0.813
CX	0.848	0.861	0.848	1.000	0.761	0.744	0.705	0.743	0.865	0.826	0.859	0.790	0.804	0.810	0.798	0.816	0.799	0.856	0.772	0.765	0.738	0.733	0.816
FP1	0.758	0.769	0.758	0.761	1.000	0.903	0.856	0.902	0.773	0.738	0.768	0.785	0.798	0.805	0.793	0.810	0.794	0.764	0.664	0.658	0.635	0.630	0.729
FP2	0.742	0.752	0.741	0.744	0.903	1.000	0.838	0.883	0.756	0.722	0.751	0.768	0.781	0.787	0.775	0.793	0.777	0.748	0.650	0.644	0.621	0.616	0.713
FP3	0.703	0.713	0.703	0.705	0.856	0.838	1.000	0.837	0.717	0.684	0.712	0.728	0.740	0.746	0.735	0.751	0.736	0.709	0.616	0.610	0.588	0.584	0.676
FP4	0.741	0.752	0.741	0.743	0.902	0.883	0.837	1.000	0.756	0.721	0.750	0.767	0.780	0.786	0.775	0.792	0.776	0.747	0.649	0.643	0.620	0.616	0.713
FR	0.863	0.875	0.862	0.865	0.773	0.756	0.717	0.756	1.000	0.840	0.874	0.803	0.817	0.824	0.811	0.829	0.813	0.870	0.785	0.778	0.750	0.745	0.830
FS	0.823	0.835	0.823	0.826	0.738	0.722	0.684	0.721	0.840	1.000	0.834	0.767	0.780	0.786	0.774	0.791	0.776	0.830	0.749	0.742	0.716	0.711	0.792
GS	0.857	0.869	0.856	0.859	0.768	0.751	0.712	0.750	0.874	0.834	1.000	0.798	0.811	0.818	0.806	0.823	0.807	0.864	0.779	0.772	0.745	0.740	0.824
NFP1	0.788	0.799	0.787	0.790	0.785	0.768	0.728	0.767	0.803	0.767	0.798	1.000	0.870	0.877	0.863	0.883	0.865	0.794	0.726	0.719	0.694	0.689	0.758
NFP2	0.801	0.813	0.801	0.804	0.798	0.781	0.740	0.780	0.817	0.780	0.811	0.870	1.000	0.892	0.878	0.898	0.880	0.808	0.738	0.731	0.705	0.700	0.771
NFP3	0.808	0.819	0.807	0.810	0.805	0.787	0.746	0.786	0.824	0.786	0.818	0.877	0.892	1.000	0.885	0.905	0.887	0.814	0.744	0.737	0.711	0.706	0.777
NFP4	0.795	0.807	0.795	0.798	0.793	0.775	0.735	0.775	0.811	0.774	0.806	0.863	0.878	0.885	1.000	0.891	0.874	0.802	0.733	0.726	0.700	0.696	0.765
NFP5	0.813	0.825	0.813	0.816	0.810	0.793	0.751	0.792	0.829	0.791	0.823	0.883	0.898	0.905	0.891	1.000	0.893	0.820	0.749	0.742	0.716	0.711	0.782
NFP6	0.797	0.808	0.797	0.799	0.794	0.777	0.736	0.776	0.813	0.776	0.807	0.865	0.880	0.887	0.874	0.893	1.000	0.803	0.734	0.727	0.702	0.697	0.767
RA	0.853	0.865	0.853	0.856	0.764	0.748	0.709	0.747	0.870	0.830	0.864	0.794	0.808	0.814	0.802	0.820	0.803	1.000	0.776	0.769	0.741	0.736	0.821
TA1	0.770	0.781	0.769	0.772	0.664	0.650	0.616	0.649	0.785	0.749	0.779	0.726	0.738	0.744	0.733	0.749	0.734	0.776	1.000	0.874	0.843	0.837	0.741
TA2	0.762	0.773	0.762	0.765	0.658	0.644	0.610	0.643	0.778	0.742	0.772	0.719	0.731	0.737	0.726	0.742	0.727	0.769	0.874	1.000	0.835	0.829	0.734
TA3	0.735	0.746	0.735	0.738	0.635	0.621	0.588	0.620	0.750	0.716	0.745	0.694	0.705	0.711	0.700	0.716	0.702	0.741	0.843	0.835	1.000	0.799	0.707
TA4	0.730	0.741	0.730	0.733	0.630	0.616	0.584	0.616	0.745	0.711	0.740	0.689	0.700	0.706	0.696	0.711	0.697	0.736	0.837	0.829	0.799	1.000	0.703
TS	0.814	0.826	0.813	0.816	0.729	0.713	0.676	0.713	0.830	0.792	0.824	0.758	0.771	0.777	0.765	0.782	0.767	0.821	0.741	0.734	0.707	0.703	1.000

Model implied estimated correlation matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.858	0.845	0.848	0.580	0.567	0.537	0.566	0.863	0.823	0.857	0.634	0.644	0.650	0.640	0.654	0.641	0.853	0.770	0.762	0.735	0.730	0.814
CPP	0.858	1.000	0.858	0.861	0.588	0.575	0.545	0.575	0.875	0.835	0.869	0.643	0.654	0.659	0.649	0.663	0.650	0.865	0.781	0.773	0.746	0.741	0.826
CS	0.845	0.858	1.000	0.848	0.579	0.567	0.537	0.566	0.862	0.823	0.856	0.633	0.644	0.649	0.640	0.654	0.641	0.853	0.769	0.762	0.735	0.730	0.813
CX	0.848	0.861	0.848	1.000	0.581	0.569	0.539	0.568	0.865	0.826	0.859	0.636	0.646	0.652	0.642	0.656	0.643	0.856	0.772	0.765	0.738	0.733	0.816
FP1	0.580	0.588	0.579	0.581	1.000	0.903	0.856	0.902	0.591	0.564	0.587	0.547	0.556	0.561	0.552	0.564	0.553	0.584	0.664	0.658	0.635	0.630	0.558
FP2	0.567	0.575	0.567	0.569	0.903	1.000	0.838	0.883	0.578	0.552	0.574	0.535	0.544	0.548	0.540	0.552	0.541	0.572	0.650	0.644	0.621	0.616	0.546
FP3	0.537	0.545	0.537	0.539	0.856	0.838	1.000	0.837	0.548	0.523	0.544	0.507	0.516	0.520	0.512	0.523	0.513	0.542	0.616	0.610	0.588	0.584	0.517
FP4	0.566	0.575	0.566	0.568	0.902	0.883	0.837	1.000	0.578	0.551	0.574	0.534	0.543	0.548	0.539	0.551	0.540	0.571	0.649	0.643	0.620	0.616	0.545
FR	0.863	0.875	0.862	0.865	0.591	0.578	0.548	0.578	1.000	0.840	0.874	0.646	0.657	0.663	0.653	0.667	0.654	0.870	0.785	0.778	0.750	0.745	0.830
FS	0.823	0.835	0.823	0.826	0.564	0.552	0.523	0.551	0.840	1.000	0.834	0.617	0.627	0.632	0.623	0.637	0.624	0.830	0.749	0.742	0.716	0.711	0.792
GS	0.857	0.869	0.856	0.859	0.587	0.574	0.544	0.574	0.874	0.834	1.000	0.642	0.652	0.658	0.648	0.662	0.649	0.864	0.779	0.772	0.745	0.740	0.824
NFP1	0.634	0.643	0.633	0.636	0.547	0.535	0.507	0.534	0.646	0.617	0.642	1.000	0.870	0.877	0.863	0.883	0.865	0.639	0.726	0.719	0.694	0.689	0.610
NFP2	0.644	0.654	0.644	0.646	0.556	0.544	0.516	0.543	0.657	0.627	0.652	0.870	1.000	0.892	0.878	0.898	0.880	0.650	0.738	0.731	0.705	0.700	0.620
NFP3	0.650	0.659	0.649	0.652	0.561	0.548	0.520	0.548	0.663	0.632	0.658	0.877	0.892	1.000	0.885	0.905	0.887	0.655	0.744	0.737	0.711	0.706	0.625
NFP4	0.640	0.649	0.640	0.642	0.552	0.540	0.512	0.539	0.653	0.623	0.648	0.863	0.878	0.885	1.000	0.891	0.874	0.645	0.733	0.726	0.700	0.696	0.616
NFP5	0.654	0.663	0.654	0.656	0.564	0.552	0.523	0.551	0.667	0.637	0.662	0.883	0.898	0.905	0.891	1.000	0.893	0.659	0.749	0.742	0.716	0.711	0.629
NFP6	0.641	0.650	0.641	0.643	0.553	0.541	0.513	0.540	0.654	0.624	0.649	0.865	0.880	0.887	0.874	0.893	1.000	0.646	0.734	0.727	0.702	0.697	0.617
RA	0.853	0.865	0.853	0.856	0.584	0.572	0.542	0.571	0.870	0.830	0.864	0.639	0.650	0.655	0.645	0.659	0.646	1.000	0.776	0.769	0.741	0.736	0.821
TA1	0.770	0.781	0.769	0.772	0.664	0.650	0.616	0.649	0.785	0.749	0.779	0.726	0.738	0.744	0.733	0.749	0.734	0.776	1.000	0.874	0.843	0.837	0.741
TA2	0.762	0.773	0.762	0.765	0.658	0.644	0.610	0.643	0.778	0.742	0.772	0.719	0.731	0.737	0.726	0.742	0.727	0.769	0.874	1.000	0.835	0.829	0.734
TA3	0.735	0.746	0.735	0.738	0.635	0.621	0.588	0.620	0.750	0.716	0.745	0.694	0.705	0.711	0.700	0.716	0.702	0.741	0.843	0.835	1.000	0.799	0.707
TA4	0.730	0.741	0.730	0.733	0.630	0.616	0.584	0.616	0.745	0.711	0.740	0.689	0.700	0.706	0.696	0.711	0.697	0.736	0.837	0.829	0.799	1.000	0.703
TS	0.814	0.826	0.813	0.816	0.558	0.546	0.517	0.545	0.830	0.792	0.824	0.610	0.620	0.625	0.616	0.629	0.617	0.821	0.741	0.734	0.707	0.703	1.000

Empirical covariance matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
CP	1.000	0.810	0.774	0.880	0.742	0.734	0.706	0.785	0.830	0.777	0.788	0.748	0.755	0.807	0.877	0.842	0.831	0.910	0.871	0.813	0.809	0.763	0.802
CPP	0.810	1.000	0.929	0.811	0.699	0.746	0.753	0.768	0.861	0.813	0.850	0.831	0.836	0.847	0.832	0.875	0.833	0.842	0.785	0.787	0.664	0.698	0.816
CS	0.774	0.929	1.000	0.823	0.697	0.709	0.715	0.749	0.886	0.821	0.907	0.777	0.832	0.839	0.827	0.845	0.829	0.781	0.724	0.752	0.580	0.602	0.725
CX	0.880	0.811	0.823	1.000	0.733	0.691	0.720	0.709	0.846	0.782	0.851	0.712	0.754	0.735	0.802	0.776	0.805	0.853	0.785	0.768	0.674	0.714	0.781
FP1	0.742	0.699	0.697	0.733	1.000	0.924	0.789	0.871	0.771	0.780	0.764	0.785	0.798	0.754	0.768	0.759	0.733	0.710	0.641	0.624	0.587	0.574	0.717
FP2	0.734	0.746	0.709	0.691	0.924	1.000	0.750	0.825	0.787	0.744	0.758	0.748	0.764	0.732	0.764	0.761	0.716	0.728	0.677	0.681	0.627	0.639	0.739
FP3	0.706	0.753	0.715	0.720	0.789	0.750	1.000	0.802	0.685	0.764	0.719	0.728	0.800	0.790	0.753	0.738	0.746	0.690	0.663	0.631	0.483	0.569	0.679
FP4	0.785	0.768	0.749	0.709	0.871	0.825	0.802	1.000	0.773	0.780	0.771	0.810	0.825	0.869	0.844	0.813	0.785	0.782	0.709	0.666	0.613	0.625	0.675
FR	0.830	0.861	0.886	0.846	0.771	0.787	0.685	0.773	1.000	0.806	0.946	0.748	0.747	0.789	0.863	0.798	0.799	0.809	0.723	0.734	0.633	0.689	0.802
FS	0.777	0.813	0.821	0.782	0.780	0.744	0.764	0.780	0.806	1.000	0.840	0.808	0.836	0.848	0.838	0.823	0.836	0.805	0.777	0.807	0.746	0.616	0.770
GS	0.788	0.850	0.907	0.851	0.764	0.758	0.719	0.771	0.946	0.840	1.000	0.770	0.802	0.801	0.852	0.820	0.819	0.796	0.734	0.737	0.629	0.677	0.762
NFP1	0.748	0.831	0.777	0.712	0.785	0.748	0.728	0.810	0.748	0.808	0.770	1.000	0.909	0.836	0.789	0.876	0.819	0.743	0.707	0.712	0.662	0.610	0.689
NFP2	0.755	0.836	0.832	0.754	0.798	0.764	0.800	0.825	0.747	0.836	0.802	0.909	1.000	0.877	0.797	0.874	0.859	0.747	0.748	0.732	0.627	0.589	0.668
NFP3	0.807	0.847	0.839	0.735	0.754	0.732	0.790	0.869	0.789	0.848	0.801	0.836	0.877	1.000	0.918	0.872	0.837	0.823	0.755	0.760	0.685	0.684	0.718
NFP4	0.877	0.832	0.827	0.802	0.768	0.764	0.753	0.844	0.863	0.838	0.852	0.789	0.797	0.918	1.000	0.872	0.872	0.865	0.787	0.764	0.741	0.756	0.753
NFP5	0.842	0.875	0.845	0.776	0.759	0.761	0.738	0.813	0.798	0.823	0.820	0.876	0.874	0.872	0.872	1.000	0.883	0.812	0.755	0.779	0.767	0.690	0.736
NFP6	0.831	0.833	0.829	0.805	0.733	0.716	0.746	0.785	0.799	0.836	0.819	0.819	0.859	0.837	0.872	0.883	1.000	0.818	0.742	0.754	0.726	0.650	0.738
RA	0.910	0.842	0.781	0.853	0.710	0.728	0.690	0.782	0.809	0.805	0.796	0.743	0.747	0.823	0.865	0.812	0.818	1.000	0.890	0.853	0.818	0.788	0.834
TA1	0.871	0.785	0.724	0.785	0.641	0.677	0.663	0.709	0.723	0.777	0.734	0.707	0.748	0.755	0.787	0.755	0.742	0.890	1.000	0.876	0.767	0.778	0.798
TA2	0.813	0.787	0.752	0.768	0.624	0.681	0.631	0.666	0.734	0.807	0.737	0.712	0.732	0.760	0.764	0.779	0.754	0.853	0.876	1.000	0.772	0.741	0.782
TA3	0.809	0.664	0.580	0.674	0.587	0.627	0.483	0.613	0.633	0.746	0.629	0.662	0.627	0.685	0.741	0.767	0.726	0.818	0.767	0.772	1.000	0.757	0.754
TA4	0.763	0.698	0.602	0.714	0.574	0.639	0.569	0.625	0.689	0.616	0.677	0.610	0.589	0.684	0.756	0.690	0.650	0.788	0.778	0.741	0.757	1.000	0.794
TS	0.802	0.816	0.725	0.781	0.717	0.739	0.679	0.675	0.802	0.770	0.762	0.689	0.668	0.718	0.753	0.736	0.738	0.834	0.798	0.782	0.754	0.794	1.000

Appendix K:

PLS-SEM Algorithm's Bootstrapping on Coefficient of Determination (R^2) from SmartPLS 4.1

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

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Final results

Quality criteria

R-square

Mean, STDEV, T values, p values

	iginal sample (O)	ple mean (M)	ation (STDEV)	|(O/STDEV)|	P values
FP	0.542	0.553	0.081	6.726	0.000
NFP	0.699	0.706	0.055	12.703	0.000
TA	0.794	0.801	0.047	16.971	0.000

Confidence intervals

	iginal sample (O)	ple mean (M)	2.5%	97.5%
FP	0.542	0.553	0.396	0.708
NFP	0.699	0.706	0.595	0.811
TA	0.794	0.801	0.705	0.885

Confidence intervals bias corrected

	M sample (O)	ple mean (M)	Bias	2.5%	97.5%
FP	0.542	0.553	0.011	0.375	0.684
NFP	0.699	0.706	0.007	0.574	0.796
TA	0.794	0.801	0.007	0.684	0.877

R-square adjusted

Mean, STDEV, T values, p values

	iginal sample (O)	ple mean (M)	ation (STDEV)	|(O/STDEV)|	P values
FP	0.539	0.550	0.081	6.643	0.000
NFP	0.697	0.704	0.055	12.581	0.000
TA	0.793	0.800	0.047	16.828	0.000

Confidence intervals

	iginal sample (O)	ple mean (M)	2.5%	97.5%
FP	0.539	0.550	0.392	0.704
NFP	0.697	0.704	0.592	0.810
TA	0.793	0.800	0.703	0.883

Algorithm

Setting

Data file

	Setting
Data file	Filter 150.csv
Weighting vector	

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^{-7}
Type of results	Standardized
Use Lohmoeller settings?	No
Weighting scheme	Path

Bootstrapping

	Setting
Complexity	Quick (slower)
Confidence interval method	Bca bootstrap
Parallel processing	No
Samples	5000
Save results per sample	No
Seed	Fixed seed
Significance level	0.05
Test type	Two tailed

Construct outer weighting mode

	Setting
FP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TOE	AUTOMATIC

Samples

The absence of this result is intentional and aligns with your model or chosen algorithm settings.

Execution log

Reading score matrix of complete data set
Calculating full dataset.
Calculating original sample.
Running samples [5000 done] (3 seconds).
Running saturated model fit. [5000 done] (4 seconds).
Running estimated model fit. [5000 done] (2 seconds).
Calculating R-square.
Calculating R-square corrected.
Calculating model decoration.
All calculations done.

Histograms

Path coefficients histogram

Indirect effects histogram

Total effects histogram

Outer weights histogram

Model and data

Inner model

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Outer model

	FP	NFP	TA	TOE
CF				-1.000
CFP				-1.000
CS				-1.000
CX				-1.000
FP1	-1.000			
FP2	-1.000			
FP3	-1.000			
FP4	-1.000			
FR				-1.000
FS				-1.000
GS				-1.000
NFP1		-1.000		
NFP2		-1.000		
NFP3		-1.000		
NFP4		-1.000		
NFP5		-1.000		
NFP6		-1.000		
RA				-1.000
TA1			-1.000	
TA2			-1.000	
TA3			-1.000	

TA4			-1.000	
TS				-1.000

Indicator data (original)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
1	3.830	3.800	3.750	4.750	3.000	3.000	3.000	3.000	3.670	3.330	4.200	3.000	4.000	3.000	4.000	3.000	5.000	4.500	5.000	4.000	4.000	4.000	4.170
2	5.000	3.600	4.000	5.000	4.000	4.000	4.000	4.000	4.000	3.000	3.800	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
3	4.330	4.200	2.750	3.000	3.000	4.000	3.000	5.000	4.000	2.330	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
4	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	4.000	3.000	3.000	3.000	4.000	2.750	2.000	2.000	3.000	3.000	3.000
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.670	2.670	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.670
6	3.000	3.000	1.250	3.000	1.000	2.000	2.000	2.000	1.000	2.330	1.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	5.000	5.000	1.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	3.000	2.670	3.400	4.000	4.000	4.000	3.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	2.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.000	2.670	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.830
9	4.330	4.400	4.500	3.750	2.000	2.000	3.000	4.000	2.670	5.000	2.800	5.000	5.000	5.000	4.000	5.000	5.000	4.250	5.000	5.000	5.000	3.000	3.330
10	4.170	4.400	4.250	4.000	5.000	5.000	5.000	4.000	4.330	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	4.000	4.000	5.000	4.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.000	2.670	3.600	4.000	4.000	3.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	5.000	4.500
12	4.000	3.800	4.000	4.000	3.000	4.000	3.000	4.000	4.000	2.330	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	3.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	3.000	3.000	3.330	2.670	3.600	4.000	4.000	3.000	3.000	3.000	3.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	4.000	4.000	4.000	3.000	3.000	2.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	4.000	4.000	4.000	4.000
15	3.170	3.000	3.000	3.000	5.000	5.000	5.000	5.000	3.670	3.000	3.400	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	3.000	4.000	3.000
16	4.000	4.000	4.000	4.250	4.000	4.000	4.000	4.000	4.000	2.670	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	4.000	4.330	3.000	3.000	3.000	4.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.330	1.000	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	4.000	5.000	5.000	3.000	4.000	3.670	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.000
20	5.000	4.600	4.500	4.500	3.000	3.000	5.000	4.000	3.670	4.000	4.000	3.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	3.000	3.500	3.750	3.000	3.000	3.000	3.000	2.000	1.670	2.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	3.000	3.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.670	3.330	2.400	3.000	3.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	3.600	3.250	5.000	4.000	3.000	5.000	3.000	3.000	4.670	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.670	3.600	3.250	3.250	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	4.000	3.000	4.000	3.000	3.500
25	3.170	3.000	2.500	3.750	3.000	3.000	4.000	3.000	2.670	2.670	2.000	3.000	3.000	3.000	3.000	2.000	4.000	4.000	3.000	4.000	3.000	3.000	3.500
26	5.000	3.200	3.250	4.250	4.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	4.670
27	3.330	3.000	3.000	3.500	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	3.000	2.000	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000
30	3.830	3.000	1.000	4.250	5.000	5.000	5.000	4.000	2.000	3.000	1.000	3.000	3.000	2.000	2.000	3.000	3.000	4.000	4.000	4.000	5.000	4.000	4.830
31	4.000	3.600	2.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
32	4.000	4.400	3.250	3.750	3.000	3.000	4.000	4.000	2.670	1.670	1.000	4.000	4.000	3.000	3.000	4.000	4.000	3.750	4.000	3.000	3.000	4.000	4.000
33	3.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000
34	2.500	3.400	3.250	3.750	3.000	3.000	3.000	2.000	3.330	1.670	3.000	3.000	3.000	2.000	2.000	3.000	3.000	2.250	2.000	4.000	2.000	3.000	3.000
35	4.170	4.200	3.250	3.750	4.000	4.000	5.000	4.000	3.000	3.330	3.000	4.000	4.000	4.000	4.000	4.000	5.000	3.750	4.000	4.000	5.000	5.000	4.830
36	4.500	4.000	4.000	4.500	4.000	4.000	4.000	4.000	4.000	4.000	3.400	4.000	4.000	4.000	4.000	4.000	4.000	4.250	4.000	4.000	5.000	5.000	4.000
37	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
38	4.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.500	4.000	4.000	4.000	4.000	3.170
39	4.000	4.000	3.500	4.000	4.000	4.000	4.000	4.000	3.000	2.330	2.000	3.000	3.000	4.000	4.000	3.000	3.000	3.750	3.000	3.000	3.000	3.000	3.000
40	5.000	4.600	4.000	4.000	4.000	4.000	4.000	4.000	3.670	2.330	3.400	4.000	4.000	5.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000
41	5.000	3.400	3.000	5.000	2.000	2.000	3.000	2.000	4.330	3.000	3.400	4.000	3.000	3.000	4.000	3.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
42	4.830	4.800	4.750	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
43	3.000	3.000	3.000	3.250	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	4.000	4.000	5.000	4.000	4.170
44	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
45	4.000	3.200	3.000	4.000	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	3.000	3.000	4.000	4.000	3.670
46	4.170	4.800	3.500	4.500	3.000	3.000	5.000	3.000	4.000	4.330	3.800	5.000	4.000	5.000	5.000	5.000	4.000	4.250	4.000	4.000	5.000	5.000	5.000
47	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
48	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
49	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
50	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
51	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
52	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
53	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
54	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
55	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
56	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
57	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
58	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
59	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
61	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
62	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
63	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
64	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
65	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
66	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
67	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
68	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
69	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
70	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
71	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
72	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
73	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
74	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
75	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
76	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
77	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
78	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
79	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
80	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
81	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
82	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
83	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
84	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
85	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
86	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
87	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
88	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
89	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
90	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
91	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
92	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
93	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
94	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
95	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
96	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
97	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
98	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
99	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
100	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
101	3.000	5.000	4.500	3.250	3.000	4.000	5.000	3.000	2.670	4.000	2.200	4.000	4.000	4.000	3.000	3.000	3.000	3.750	5.000	5.000	3.000	4.000	4.830
102	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
103	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
104	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
105	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
106	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
107	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
108	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
109	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
110	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
111	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
112	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
113	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
114	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
115	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
116	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
117	3.000	2.600	2.500	4.000	4.000	3.000	4.000	4.000	2.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	3.250	3.000	3.000	3.000	4.000	2.830
118	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
119	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
120	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
121	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
122	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
123	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
124	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
125	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
126	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
127	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
128	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
129	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
130	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
131	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
132	5.000	5.000	5.000	5.000	3.000	5.000	5.000	3.000	5.000	5.000	5.000	3.000	3.000	3.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
133	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
134	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
135	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
136	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
137	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
138	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
139	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
140	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
141	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
142	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
143	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
144	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
145	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
146	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
147	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
148	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
149	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

MV descriptives

	Mean	Median	Observed min	Observed max	ard deviation	xcess kurtosis	Skewness	rvations used	s test statistic	Mises p value
CP	4.655	5.000	2.500	5.000	0.635	1.573	-1.683	150.000	5.718	0.000
CPP	4.617	5.000	2.600	5.000	0.659	0.948	-1.526	150.000	5.034	0.000
CS	4.518	5.000	1.000	5.000	0.832	2.688	-1.738	150.000	4.915	0.000
CX	4.680	5.000	3.000	5.000	0.564	1.347	-1.579	150.000	5.462	0.000
FP1	4.473	5.000	1.000	5.000	0.900	2.075	-1.640	150.000	5.014	0.000
FP2	4.513	5.000	1.000	5.000	0.854	1.980	-1.662	150.000	5.264	0.000
FP3	4.613	5.000	2.000	5.000	0.746	2.419	-1.852	150.000	6.063	0.000
FP4	4.500	5.000	2.000	5.000	0.847	1.024	-1.498	150.000	5.017	0.000
FR	4.507	5.000	1.000	5.000	0.853	2.078	-1.677	150.000	4.914	0.000
FS	4.398	5.000	1.000	5.000	1.018	0.553	-1.389	150.000	5.385	0.000
GS	4.403	5.000	1.000	5.000	1.009	1.609	-1.583	150.000	4.798	0.000
NFP1	4.567	5.000	3.000	5.000	0.734	0.226	-1.357	150.000	5.353	0.000
NFP2	4.547	5.000	3.000	5.000	0.745	0.033	-1.287	150.000	5.099	0.000
NFP3	4.547	5.000	2.000	5.000	0.788	1.250	-1.559	150.000	5.265	0.000
NFP4	4.567	5.000	2.000	5.000	0.770	1.631	-1.645	150.000	5.370	0.000
NFP5	4.593	5.000	2.000	5.000	0.731	1.116	-1.569	150.000	5.707	0.000
NFP6	4.633	5.000	3.000	5.000	0.667	1.091	-1.587	150.000	5.849	0.000
RA	4.668	5.000	2.250	5.000	0.595	2.372	-1.753	150.000	5.348	0.000
TA1	4.647	5.000	2.000	5.000	0.694	2.853	-1.928	150.000	6.195	0.000
TA2	4.680	5.000	2.000	5.000	0.614	3.236	-1.936	150.000	6.086	0.000
TA3	4.713	5.000	2.000	5.000	0.636	3.789	-2.180	150.000	7.329	0.000
TA4	4.727	5.000	3.000	5.000	0.599	2.947	-2.064	150.000	7.374	0.000
TS	4.655	5.000	1.670	5.000	0.694	4.225	-2.160	150.000	5.952	0.000

Indicator data (standardized)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
1	-1.299	-1.240	-0.924	0.124	-1.638	-1.771	-2.161	-1.772	-0.982	-1.049	-0.201	-2.134	-0.734	-1.962	-0.736	-2.179	0.549	-0.283	0.509	-1.107	-1.122	-1.213	-0.698
2	0.542	-1.543	-0.623	0.568	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.597	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	0.509	-1.107	-1.122	-1.213	-0.943
3	-0.512	-0.633	-2.126	-2.981	-1.638	-0.601	-2.161	0.591	-0.594	-2.031	-1.787	0.590	-2.077	-0.694	-0.736	-0.811	-0.949	0.137	-0.932	-1.107	0.451	0.456	0.253
4	-2.606	-2.453	-1.826	-2.981	-0.526	-1.771	-0.822	-1.772	-1.767	-1.373	-1.390	-0.772	-0.734	-1.962	-2.036	-2.179	-0.949	-3.222	-3.813	-4.361	-2.694	-2.883	-2.383
5	-1.032	-0.936	-0.623	-1.207	-1.638	-0.601	-0.822	-0.591	0.192	-1.697	-0.399	-2.134	-0.734	-0.694	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	-1.213	-1.418
6	-2.606	-2.453	-3.930	-2.981	-3.861	-2.942	-3.501	-2.953	-4.113	-2.031	-3.373	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	0.456	-4.298
7	-2.086	-0.330	0.579	-0.763	-3.861	-4.113	0.518	-1.772	-1.767	-1.697	-0.994	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.542	-2.372	-1.107	-2.694	-2.883	-3.578
8	-1.819	-0.936	-0.924	-1.207	-0.526	-0.601	-3.501	-2.953	-1.767	-1.697	-1.192	0.590	-0.734	-3.231	-3.335	0.556	-0.949	-1.542	-2.372	-1.107	0.451	-2.883	-1.187
9	-0.512	-0.330	-0.022	-1.650	-2.749	-2.942	-2.161	-0.591	-2.155	0.592	-1.589	0.590	0.609	0.575	-0.736	0.556	0.549	-0.703	0.509	0.521	0.451	-2.883	-1.907
10	-0.764	-0.330	-0.323	-1.207	0.585	0.570	0.518	-0.591	-0.207	0.592	-0.399	0.590	0.609	0.575	0.563	0.556	0.549	-1.122	-0.932	-1.107	0.451	-1.213	-0.223
11	-1.032	-0.633	-0.924	-1.207	-1.638	-1.771	-0.822	-1.772	-0.594	-1.697	-0.796	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	0.456	-0.223
12	-1.032	-1.240	-0.623	-1.207	-1.638	-0.601	-2.161	-0.591	-0.594	-2.031	-0.597	-2.134	-2.077	-0.694	0.563	-0.811	-0.949	-0.703	-2.372	-1.107	0.451	0.456	-0.943
13	-1.551	-0.936	-1.224	-1.207	-1.638	-0.601	-2.161	-1.772	-1.380	-1.697	-0.796	-0.772	-0.734	-1.962	-2.036	-2.179	-2.447	-0.703	0.509	0.521	-1.122	0.456	-0.698
14	-2.086	-1.240	-1.525	-1.650	-1.638	-0.601	-0.822	-0.591	-1.767	-1.373	-1.589	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.962	-2.372	-1.107	-1.122	-1.213	-0.943
15	-2.338	-2.453	-1.826	-2.981	0.585	0.570	0.518	0.591	-0.982	-1.373	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-2.447	-1.122	-0.932	-1.107	-2.694	-1.213	-2.383
16	-1.032	-0.936	-0.623	-0.763	-0.526	-0.601	-0.822	-0.591	-0.594	-1.697	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-0.703	-0.932	-1.107	-1.122	0.456	-0.943
17	-1.299	-1.543	-1.224	-1.207	-0.526	-1.771	-0.822	-0.591	-0.594	-0.067	-1.390	-2.134	-2.077	-0.694	-0.736	-2.179	-0.949	-0.703	-2.372	-1.107	-1.122	-2.883	-1.187
18	-1.032	-0.330	-0.623	0.568	-1.638	-1.771	-0.822	-1.772	-0.207	-3.338	-0.201	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-0.703	-0.932	-2.734	-2.694	0.456	-0.698
19	-1.032	-0.936	-0.623	-1.207	-0.526	0.570	0.518	-1.772	-0.594	-0.715	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
20	0.542	-0.026	-0.022	-0.319	-1.638	-1.771	0.518	-0.591	-0.982	-0.391	-0.399	-2.134	0.609	0.575	-0.736	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
21	-2.606	-2.453	-1.224	-1.650	-1.638	-1.771	-2.161	-1.772	-2.940	-2.680	-2.382	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-2.372	-2.734	-1.122	-1.213	-2.383
22	-0.512	-0.330	-0.323	-0.763	-1.638	-0.601	-3.501	-2.953	0.192	-1.049	-1.985	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	-0.283	-0.932	0.521	0.451	0.456	0.497
23	0.542	-1.543	-1.525	0.568	-0.526	-1.771	0.518	-1.772	-1.767	0.267	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
24	-1.551	-1.543	-1.525	-2.537	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-0.932	-2.734	-1.122	-2.883	-1.663
25	-2.338	-2.453	-2.427	-1.650	-1.638	-1.771	-0.822	-1.772	-2.155	-1.697	-2.382	-2.134	-2.077	-1.962	-2.036	-3.547	-0.949	-1.122	-2.372	-1.107	-2.694	-2.883	-1.663
26	0.542	-2.150	-1.525	-0.763	-0.526	-0.601	-0.822	-0.591	-1.767	-1.373	-1.390	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	0.557	0.509	0.521	0.451	0.456	0.022
27	-2.086	-2.453	-1.826	-2.094	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-3.222	-2.372	-1.107	-2.694	-1.213	-2.138
28	-0.512	-0.633	-0.924	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-2.077	-0.694	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	0.456	-0.698
29	0.542	-1.846	-1.826	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.355	-2.382	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	-2.883	-3.823
30	-1.299	-2.453	-4.230	-0.763	0.585	0.570	0.518	-0.591	-2.940	-1.373	-3.373	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	-1.213	0.253
31	-1.032	-1.543	-2.126	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
32	-1.032	-0.330	-1.525	-1.650	-1.638	-1.771	-0.822	-0.591	-2.155	-2.680	-3.373	-0.772	-0.734	-1.962	-2.036	-0.811	-0.949	-1.542	-0.932	-2.734	-2.694	-1.213	-0.943
33	-2.606	-0.936	-0.623	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.373	-0.399	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-2.372	-2.734	-2.694	-2.883	-0.943
34	-3.393	-1.846	-1.525	-1.650	-1.638	-1.771	-2.161	-2.953	-1.380	-2.680	-1.390	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-4.061	-3.813	-1.107	-4.266	-2.883	-2.383
35	-0.764	-0.633	-1.525	-1.650	-0.526	-0.601	0.518	-0.591	-1.767	-1.049	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.542	-0.932	-1.107	0.451	0.456	0.253
36	-0.245	-0.936	-0.623	-0.319	-0.526	-0.601	-0.822	-0.591	-0.594	-0.391	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-0.703	-0.932	-1.107	0.451	0.456	-0.943
37	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
38	-1.032	-2.453	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.049	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.962	-0.932	-1.107	-1.122	-1.213	-2.138
39	-1.032	-0.936	-1.224	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.031	-2.382	-2.134	-2.077	-0.694	-0.736	-2.179	-2.447	-1.542	-2.372	-2.734	-2.694	-2.883	-2.383
40	0.542	-0.026	-0.623	-1.207	-0.526	-0.601	-0.822	-0.591	-0.982	-2.031	-0.994	-0.772	-0.734	0.575	0.563	0.556	-0.949	0.557	0.509	0.521	0.451	0.456	0.497
41	0.542	-1.846	-1.826	0.568	-2.749	-2.942	-2.161	-2.953	-0.207	-1.373	-0.994	-0.772	-2.077	-1.962	-0.736	-2.179	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
42	0.275	0.277	0.279	0.568	-0.526	-1.771	-0.822	0.591	0.579	0.592	0.592	-0.772	-2.077	-0.694	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
43	-2.606	-2.453	-1.826	-2.537	-1.638	-1.771	-2.161	-1.772	-1.767	-0.391	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-0.932	-1.107	0.451	-1.213	-0.698
44	-2.606	-2.453	-1.826	-2.981	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.802	-2.372	-2.734	-2.694	-2.883	-2.383
45	-1.032	-2.150	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-2.372	-2.734	-1.122	-1.213	-1.418
46	-0.764	0.277	-1.224	-0.319	-1.638	-1.771	0.518	-1.772	-0.594	-0.067	-0.597	0.590	-0.734	0.575	0.563	0.556	-0.949	-0.703	-0.932	-1.107	0.451	0.456	0.497
47	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
48	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
49	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
50	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
51	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
52	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
53	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
54	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
55	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
56	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
57	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
58	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
59	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
60	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
61	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
62	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
63	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
64	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
65	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
66	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
67	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
68	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
69	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
70	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
71	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
72	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
73	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
74	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
75	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
76	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
77	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
78	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
79	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
80	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
81	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
82	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
83	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
84	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
85	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
86	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
87	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
88	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
89	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
90	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
91	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
92	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
93	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
94	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
95	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
96	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
97	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
98	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
99	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
100	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
101	-2.606	0.580	-0.022	-2.537	-1.638	-0.601	0.518	-1.772	-2.155	-0.391	-2.184	-0.772	-0.734	-0.694	-2.036	-2.179	-2.447	-1.542	0.509	0.521	-2.694	-1.213	0.253
102	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
103	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
104	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
105	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
106	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
107	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
108	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
109	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
110	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
111	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
112	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
113	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
114	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
115	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
116	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
117	-2.606	-3.060	-2.427	-1.207	-0.526	-1.771	-0.822	-0.591	-2.940	-1.373	-2.382	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-2.382	-2.372	-2.734	-2.694	-1.213	-2.627
118	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
119	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
120	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
121	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
122	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
123	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
124	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
125	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
126	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
127	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
128	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
129	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

130	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
131	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
132	0.542	0.580	0.579	0.568	-1.638	0.570	0.518	-1.772	0.579	0.592	0.592	-2.134	-2.077	-1.962	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
133	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
134	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
135	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
136	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
137	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
138	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
139	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
140	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
141	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
142	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
143	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
144	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
145	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
146	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
147	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
148	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
149	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

Appendix L:

PLS-SEM Algorithm's Blindfolding Procedure on Stone-Geisser's Q^2 from SmartPLS 4.1

SmartPLS report

Please cite the use of SmartPLS: Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

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Final results

Construct cross-validated redundancy

Total

	SSO	SSE	1-SSE/SSO
FP	600.000	319.039	0.468
NFP	900.000	350.705	0.610
TA	600.000	207.714	0.654
TOE	1350.000	1350.000	0.000

Case1

	SSO	SSE	1-SSE/SSO
FP	102.728	47.660	0.536
NFP	119.593	44.200	0.630
TA	101.844	36.802	0.639
TOE	181.224	181.224	0.000

Case2

	SSO	SSE	1-SSE/SSO
FP	83.287	48.835	0.414
NFP	135.582	57.903	0.573
TA	64.452	29.867	0.537
TOE	195.584	195.584	0.000

Case3

	SSO	SSE	1-SSE/SSO
FP	86.170	44.942	0.478
NFP	134.695	43.341	0.679
TA	52.853	22.988	0.565
TOE	182.695	182.695	0.000

Case4

	SSO	SSE	1-SSE/SSO
FP	86.304	43.514	0.496
NFP	124.450	43.043	0.654
TA	101.383	26.677	0.737
TOE	174.467	174.467	0.000

Case5

	SSO	SSE	1-SSE/SSO
FP	61.001	31.609	0.482
NFP	130.859	55.061	0.579
TA	88.385	24.434	0.724
TOE	194.700	194.700	0.000

Case6

	SSO	SSE	1-SSE/SSO
FP	88.849	48.472	0.454
NFP	132.076	54.321	0.589
TA	96.073	36.079	0.624
TOE	221.018	221.018	0.000

Case7

	SSO	SSE	1-SSE/SSO
FP	91.661	53.989	0.411
NFP	122.745	52.832	0.570
TA	95.269	30.895	0.676
TOE	200.112	200.112	0.000

Algorithm

Setting

Data file

	Setting
Data file	form - Actual Filter 150 pac
Weighting vector	

PLS-SEM algorithm

	Setting
Initial weights	1.0
Max. number of iterations	3000
Stop criterion	10^-7
Type of results	Standardized
Use Lohmoeller settings?	No
Weighting scheme	Path

Blindfolding settings

	Setting
Omission distance	7

Construct outer weighting mode

	Setting
FP	AUTOMATIC
NFP	AUTOMATIC
TA	AUTOMATIC
TOE	AUTOMATIC

Execution log

Reading score matrix of complete data set
Calculating full data set.
Calculating case 1 of 7 for the blindfolding procedure.
Calculating case 2 of 7 for the blindfolding procedure.
Calculating case 3 of 7 for the blindfolding procedure.
Calculating case 4 of 7 for the blindfolding procedure.
Calculating case 5 of 7 for the blindfolding procedure.
Calculating case 6 of 7 for the blindfolding procedure.
Calculating case 7 of 7 for the blindfolding procedure.
All calculations done.

Model and data

Inner model

	FP	NFP	TA	TOE
FP				
NFP				
TA	1.000	1.000		
TOE			1.000	

Outer model

	FP	NFP	TA	TOE
CP				-1.000
CPP				-1.000
CS				-1.000
CX				-1.000
FP1	-1.000			
FP2	-1.000			
FP3	-1.000			
FP4	-1.000			
FR				-1.000
FS				-1.000
GS				-1.000
NFP1		-1.000		
NFP2		-1.000		
NFP3		-1.000		
NFP4		-1.000		
NFP5		-1.000		
NFP6		-1.000		
RA				-1.000
TA1			-1.000	
TA2			-1.000	
TA3			-1.000	

TA4			-1.000	
TS				-1.000

Indicator data (original)

Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
1	3.830	3.800	3.750	4.750	3.000	3.000	3.000	3.000	3.670	3.330	4.200	3.000	4.000	3.000	4.000	3.000	5.000	4.500	5.000	4.000	4.000	4.000	4.170
2	5.000	3.600	4.000	5.000	4.000	4.000	4.000	4.000	4.000	3.000	3.800	4.000	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
3	4.330	4.200	2.750	3.000	3.000	4.000	3.000	5.000	4.000	2.330	2.600	5.000	3.000	4.000	4.000	4.000	4.000	4.750	4.000	4.000	5.000	5.000	4.830
4	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	4.000	3.000	3.000	3.000	4.000	2.750	2.000	2.000	3.000	3.000	3.000
5	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.670	2.670	4.000	3.000	4.000	4.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	4.000	3.670
6	3.000	3.000	1.250	3.000	1.000	2.000	2.000	2.000	1.000	2.330	1.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	5.000	5.000	1.670
7	3.330	4.400	5.000	4.250	1.000	1.000	5.000	3.000	3.000	2.670	3.400	4.000	4.000	4.000	3.000	4.000	4.000	3.750	3.000	4.000	3.000	3.000	2.170
8	3.500	4.000	3.750	4.000	4.000	4.000	2.000	2.000	3.000	2.670	3.200	5.000	4.000	2.000	2.000	5.000	4.000	3.750	3.000	4.000	5.000	3.000	3.830
9	4.330	4.400	4.500	3.750	2.000	2.000	3.000	4.000	2.670	5.000	2.800	5.000	5.000	5.000	4.000	5.000	5.000	4.250	5.000	5.000	5.000	3.000	3.330
10	4.170	4.400	4.250	4.000	5.000	5.000	5.000	4.000	4.330	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	4.000	4.000	5.000	4.000	4.500
11	4.000	4.200	3.750	4.000	3.000	3.000	4.000	3.000	4.000	2.670	3.600	4.000	4.000	3.000	4.000	4.000	4.000	3.500	4.000	4.000	4.000	5.000	4.500
12	4.000	3.800	4.000	4.000	3.000	4.000	3.000	4.000	4.000	2.330	3.800	3.000	3.000	4.000	5.000	4.000	4.000	4.250	3.000	4.000	5.000	5.000	4.000
13	3.670	4.000	3.500	4.000	3.000	4.000	3.000	3.000	3.330	2.670	3.600	4.000	4.000	3.000	3.000	3.000	3.000	4.250	5.000	5.000	4.000	5.000	4.170
14	3.330	3.800	3.250	3.750	3.000	4.000	4.000	4.000	3.000	3.000	2.800	4.000	4.000	4.000	3.000	4.000	4.000	3.500	3.000	4.000	4.000	4.000	4.000
15	3.170	3.000	3.000	3.000	5.000	5.000	5.000	5.000	3.670	3.000	3.400	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	3.000	4.000	3.000
16	4.000	4.000	4.000	4.250	4.000	4.000	4.000	4.000	4.000	2.670	3.400	4.000	4.000	4.000	4.000	4.000	5.000	4.250	4.000	4.000	4.000	5.000	4.000
17	3.830	3.600	3.500	4.000	4.000	3.000	4.000	4.000	4.000	4.330	3.000	3.000	3.000	4.000	4.000	3.000	4.000	4.250	3.000	4.000	4.000	3.000	3.830
18	4.000	4.400	4.000	5.000	3.000	3.000	4.000	3.000	4.330	1.000	4.200	3.000	3.000	3.000	3.000	3.000	3.000	4.250	4.000	3.000	3.000	5.000	4.170
19	4.000	4.000	4.000	4.000	4.000	5.000	5.000	3.000	4.000	3.670	4.000	4.000	4.000	4.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000	4.000	4.000
20	5.000	4.600	4.500	4.500	3.000	3.000	5.000	4.000	3.670	4.000	4.000	3.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
21	3.000	3.000	3.500	3.750	3.000	3.000	3.000	3.000	2.000	1.670	2.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	3.000	3.000	4.000	4.000	3.000
22	4.330	4.400	4.250	4.250	3.000	4.000	2.000	2.000	4.670	3.330	2.400	3.000	3.000	4.000	4.000	4.000	4.000	4.500	4.000	5.000	5.000	5.000	5.000
23	5.000	3.600	3.250	5.000	4.000	3.000	5.000	3.000	3.000	4.670	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
24	3.670	3.600	3.250	3.250	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	4.000	3.000	4.000	3.000	3.500
25	3.170	3.000	2.500	3.750	3.000	3.000	4.000	3.000	2.670	2.670	2.000	3.000	3.000	3.000	3.000	2.000	4.000	4.000	3.000	4.000	3.000	3.000	3.500
26	5.000	3.200	3.250	4.250	4.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	5.000	5.000	5.000	5.000	5.000	4.670
27	3.330	3.000	3.000	3.500	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.750	3.000	4.000	3.000	4.000	3.170
28	4.330	4.200	3.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	5.000	4.170
29	5.000	3.400	3.000	4.000	4.000	4.000	4.000	4.000	3.000	2.000	2.000	4.000	4.000	3.000	4.000	4.000	4.000	3.750	4.000	4.000	4.000	3.000	2.000
30	3.830	3.000	1.000	4.250	5.000	5.000	5.000	4.000	2.000	3.000	1.000	3.000	3.000	2.000	2.000	3.000	3.000	4.000	4.000	4.000	5.000	4.000	4.830
31	4.000	3.600	2.750	4.000	4.000	4.000	4.000	4.000	4.000	3.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
32	4.000	4.400	3.250	3.750	3.000	3.000	4.000	4.000	2.670	1.670	1.000	4.000	4.000	3.000	3.000	4.000	4.000	3.750	4.000	3.000	3.000	4.000	4.000
33	3.000	4.000	4.000	4.000	3.000	3.000	3.000	3.000	4.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000
34	2.500	3.400	3.250	3.750	3.000	3.000	3.000	2.000	3.330	1.670	3.000	3.000	3.000	2.000	2.000	3.000	3.000	2.250	2.000	4.000	2.000	3.000	3.000
35	4.170	4.200	3.250	3.750	4.000	4.000	5.000	4.000	3.000	3.330	3.000	4.000	4.000	4.000	4.000	4.000	5.000	3.750	4.000	4.000	5.000	5.000	4.830
36	4.500	4.000	4.000	4.500	4.000	4.000	4.000	4.000	4.000	4.000	3.400	4.000	4.000	4.000	4.000	4.000	4.000	4.250	4.000	4.000	5.000	5.000	4.000
37	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
38	4.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.500	4.000	4.000	4.000	4.000	3.170
39	4.000	4.000	3.500	4.000	4.000	4.000	4.000	4.000	3.000	2.330	2.000	3.000	3.000	4.000	4.000	3.000	3.000	3.750	3.000	3.000	3.000	3.000	3.000
40	5.000	4.600	4.000	4.000	4.000	4.000	4.000	4.000	3.670	2.330	3.400	4.000	4.000	5.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000
41	5.000	3.400	3.000	5.000	2.000	2.000	3.000	2.000	4.330	3.000	3.400	4.000	3.000	3.000	4.000	3.000	4.000	4.750	5.000	5.000	5.000	5.000	5.000
42	4.830	4.800	4.750	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	4.000	3.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
43	3.000	3.000	3.000	3.250	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.250	4.000	4.000	5.000	4.000	4.170
44	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
45	4.000	3.200	3.000	4.000	3.000	3.000	3.000	3.000	3.330	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	3.000	3.000	4.000	4.000	3.670
46	4.170	4.800	3.500	4.500	3.000	3.000	5.000	3.000	4.000	4.330	3.800	5.000	4.000	5.000	5.000	5.000	4.000	4.250	4.000	4.000	5.000	5.000	5.000
47	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
48	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
49	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
50	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
51	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
52	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
53	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
54	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
55	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
56	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
57	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
58	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
59	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
61	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
62	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
63	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
64	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
65	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
66	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
67	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
68	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
69	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
70	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
71	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
72	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
73	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
74	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
75	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
76	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
77	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
78	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
79	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
80	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
81	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
82	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
83	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
84	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
85	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
86	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
87	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
88	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
89	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
90	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
91	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
92	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
93	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
94	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
95	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
96	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
97	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
98	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
99	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
100	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
101	3.000	5.000	4.500	3.250	3.000	4.000	5.000	3.000	2.670	4.000	2.200	4.000	4.000	4.000	3.000	3.000	3.000	3.750	5.000	5.000	3.000	4.000	4.830
102	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
103	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
104	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
105	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
106	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
107	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
108	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
109	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
110	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
111	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
112	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
113	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
114	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
115	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
116	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
117	3.000	2.600	2.500	4.000	4.000	3.000	4.000	4.000	2.000	3.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	3.250	3.000	3.000	3.000	4.000	2.830
118	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
119	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
120	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
121	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
122	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
123	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
124	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
125	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
126	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
127	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
128	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
129	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
130	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
131	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
132	5.000	5.000	5.000	5.000	3.000	5.000	5.000	3.000	5.000	5.000	5.000	3.000	3.000	3.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
133	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
134	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
135	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
136	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
137	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
138	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
139	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
140	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
141	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
142	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
143	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
144	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
145	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
146	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
147	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
148	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
149	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000

MV descriptives

	Mean	Median	Observed min	Observed max	lard deviation	xcess kurtosis	Skewness	ervations used	s test statistic	Mises p value
CP	4.655	5.000	2.500	5.000	0.635	1.573	-1.683	150.000	5.718	0.000
CPP	4.617	5.000	2.600	5.000	0.659	0.948	-1.526	150.000	5.034	0.000
CS	4.518	5.000	1.000	5.000	0.832	2.688	-1.738	150.000	4.915	0.000
CX	4.680	5.000	3.000	5.000	0.564	1.347	-1.579	150.000	5.462	0.000

FP1	4.473	5.000	1.000	5.000	0.900	2.075	-1.640	150.000	5.014	0.000
FP2	4.513	5.000	1.000	5.000	0.854	1.980	-1.662	150.000	5.264	0.000
FP3	4.613	5.000	2.000	5.000	0.746	2.419	-1.852	150.000	6.063	0.000
FP4	4.500	5.000	2.000	5.000	0.847	1.024	-1.498	150.000	5.017	0.000
FR	4.507	5.000	1.000	5.000	0.853	2.078	-1.677	150.000	4.914	0.000
FS	4.398	5.000	1.000	5.000	1.018	0.553	-1.389	150.000	5.385	0.000
GS	4.403	5.000	1.000	5.000	1.009	1.609	-1.583	150.000	4.798	0.000
NFP1	4.567	5.000	3.000	5.000	0.734	0.226	-1.357	150.000	5.353	0.000
NFP2	4.547	5.000	3.000	5.000	0.745	0.033	-1.287	150.000	5.099	0.000
NFP3	4.547	5.000	2.000	5.000	0.788	1.250	-1.559	150.000	5.265	0.000
NFP4	4.567	5.000	2.000	5.000	0.770	1.631	-1.645	150.000	5.370	0.000
NFP5	4.593	5.000	2.000	5.000	0.731	1.116	-1.569	150.000	5.707	0.000
NFP6	4.633	5.000	3.000	5.000	0.667	1.091	-1.587	150.000	5.849	0.000
RA	4.668	5.000	2.250	5.000	0.595	2.372	-1.753	150.000	5.348	0.000
TA1	4.647	5.000	2.000	5.000	0.694	2.853	-1.928	150.000	6.195	0.000
TA2	4.680	5.000	2.000	5.000	0.614	3.236	-1.936	150.000	6.086	0.000
TA3	4.713	5.000	2.000	5.000	0.636	3.789	-2.180	150.000	7.329	0.000
TA4	4.727	5.000	3.000	5.000	0.599	2.947	-2.064	150.000	7.374	0.000
TS	4.655	5.000	1.670	5.000	0.694	4.225	-2.160	150.000	5.952	0.000

Indicator data (standardized)

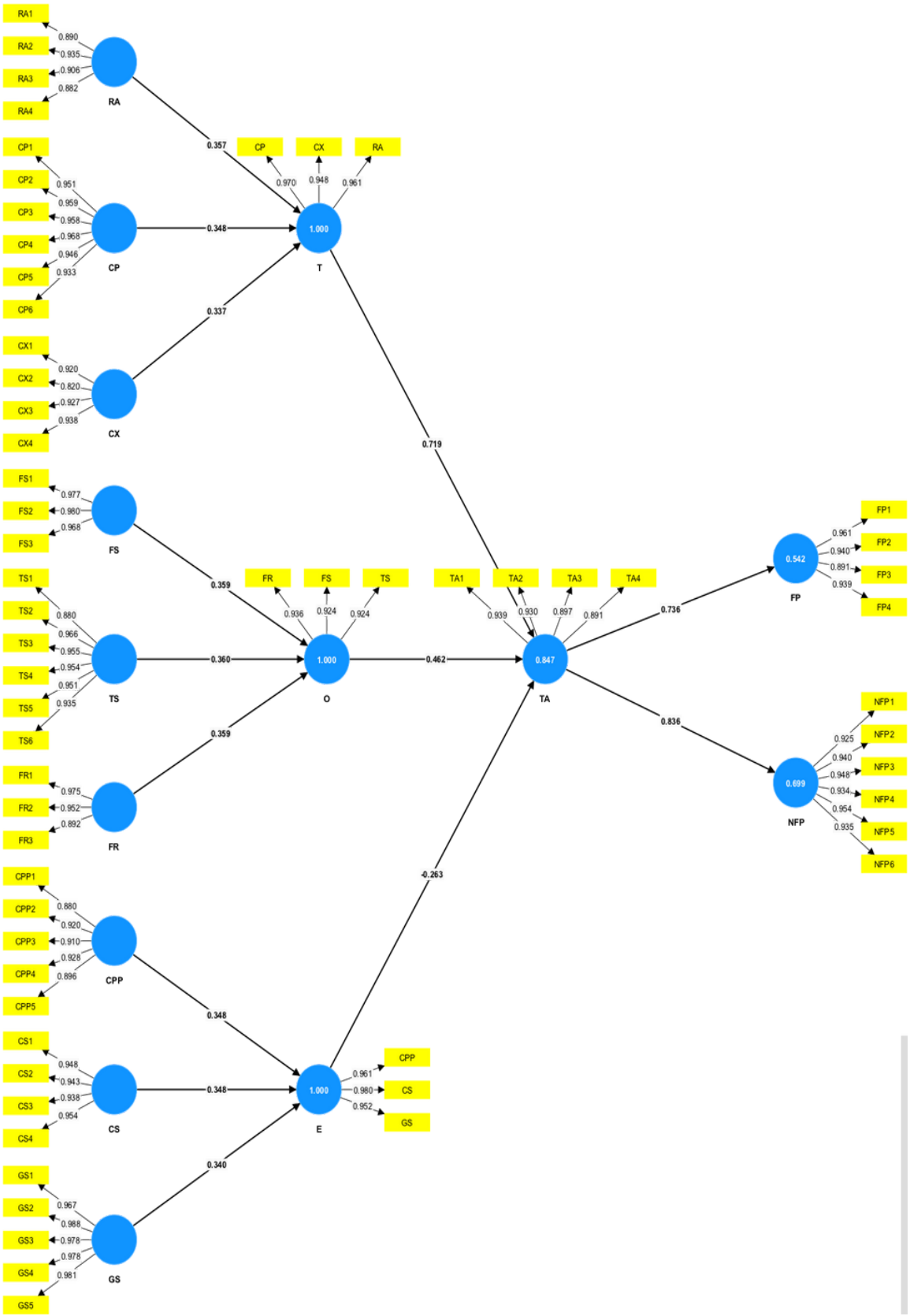
Matrix

	CP	CPP	CS	CX	FP1	FP2	FP3	FP4	FR	FS	GS	NFP1	NFP2	NFP3	NFP4	NFP5	NFP6	RA	TA1	TA2	TA3	TA4	TS
0	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
1	-1.299	-1.240	-0.924	0.124	-1.638	-1.771	-2.161	-1.772	-0.982	-1.049	-0.201	-2.134	-0.734	-1.962	-0.736	-2.179	0.549	-0.283	0.509	-1.107	-1.122	-1.213	-0.698
2	0.542	-1.543	-0.623	0.568	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.597	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	0.509	-1.107	-1.122	-1.213	-0.943
3	-0.512	-0.633	-2.126	-2.981	-1.638	-0.601	-2.161	0.591	-0.594	-2.031	-1.787	0.590	-2.077	-0.694	-0.736	-0.811	-0.949	0.137	-0.932	-1.107	0.451	0.456	0.253
4	-2.606	-2.453	-1.826	-2.981	-0.526	-1.771	-0.822	-1.772	-1.767	-1.373	-1.390	-0.772	-0.734	-1.962	-2.036	-2.179	-0.949	-3.222	-3.813	-4.361	-2.694	-2.883	-2.383
5	-1.032	-0.936	-0.623	-1.207	-1.638	-0.601	-0.822	-0.591	0.192	-1.697	-0.399	-2.134	-0.734	-0.694	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	-1.213	-1.418
6	-2.606	-2.453	-3.930	-2.981	-3.861	-2.942	-3.501	-2.953	-4.113	-2.031	-3.373	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	0.456	-4.298
7	-2.086	-0.330	0.579	-0.763	-3.861	-4.113	0.518	-1.772	-1.767	-1.697	-0.994	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.542	-2.372	-1.107	-2.694	-2.883	-3.578
8	-1.819	-0.936	-0.924	-1.207	-0.526	-0.601	-3.501	-2.953	-1.767	-1.697	-1.192	0.590	-0.734	-3.231	-3.335	0.556	-0.949	-1.542	-2.372	-1.107	0.451	-2.883	-1.187
9	-0.512	-0.330	-0.022	-1.650	-2.749	-2.942	-2.161	-0.591	-2.155	0.592	-1.589	0.590	0.609	0.575	-0.736	0.556	0.549	-0.703	0.509	0.521	0.451	-2.883	-1.907
10	-0.764	-0.330	-0.323	-1.207	0.585	0.570	0.518	-0.591	-0.207	0.592	-0.399	0.590	0.609	0.575	0.563	0.556	0.549	-1.122	-0.932	-1.107	0.451	-1.213	-0.223
11	-1.032	-0.633	-0.924	-1.207	-1.638	-1.771	-0.822	-1.772	-0.594	-1.697	-0.796	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.962	-0.932	-1.107	-1.122	0.456	-0.223
12	-1.032	-1.240	-0.623	-1.207	-1.638	-0.601	-2.161	-0.591	-0.594	-2.031	-0.597	-2.134	-2.077	-0.694	0.563	-0.811	-0.949	-0.703	-2.372	-1.107	0.451	0.456	-0.943
13	-1.551	-0.936	-1.224	-1.207	-1.638	-0.601	-2.161	-1.772	-1.380	-1.697	-0.796	-0.772	-0.734	-1.962	-2.036	-2.179	-2.447	-0.703	0.509	0.521	-1.122	0.456	-0.698
14	-2.086	-1.240	-1.525	-1.650	-1.638	-0.601	-0.822	-0.591	-1.767	-1.373	-1.589	-0.772	-0.734	-0.694	-2.036	-0.811	-0.949	-1.962	-2.372	-1.107	-1.122	-1.213	-0.943
15	-2.338	-2.453	-1.826	-2.981	0.585	0.570	0.518	0.591	-0.982	-1.373	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-2.447	-1.122	-0.932	-1.107	-2.694	-1.213	-2.383
16	-1.032	-0.936	-0.623	-0.763	-0.526	-0.601	-0.822	-0.591	-0.594	-1.697	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-0.703	-0.932	-1.107	-1.122	0.456	-0.943
17	-1.299	-1.543	-1.224	-1.207	-0.526	-1.771	-0.822	-0.591	-0.594	-0.067	-1.390	-2.134	-2.077	-0.694	-0.736	-2.179	-0.949	-0.703	-2.372	-1.107	-1.122	-2.883	-1.187
18	-1.032	-0.330	-0.623	0.568	-1.638	-1.771	-0.822	-1.772	-0.207	-3.338	-0.201	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-0.703	-0.932	-2.734	-2.694	0.456	-0.698
19	-1.032	-0.936	-0.623	-1.207	-0.526	0.570	0.518	-1.772	-0.594	-0.715	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
20	0.542	-0.026	-0.022	-0.319	-1.638	-1.771	0.518	-0.591	-0.982	-0.391	-0.399	-2.134	0.609	0.575	-0.736	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
21	-2.606	-2.453	-1.224	-1.650	-1.638	-1.771	-2.161	-1.772	-2.940	-2.680	-2.382	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-2.372	-2.734	-1.122	-1.213	-2.383
22	-0.512	-0.330	-0.323	-0.763	-1.638	-0.601	-3.501	-2.953	0.192	-1.049	-1.985	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	-0.283	-0.932	0.521	0.451	0.456	0.497
23	0.542	-1.543	-1.525	0.568	-0.526	-1.771	0.518	-1.772	-1.767	0.267	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
24	-1.551	-1.543	-1.525	-2.537	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-0.932	-2.734	-1.122	-2.883	-1.663
25	-2.338	-2.453	-2.427	-1.650	-1.638	-1.771	-0.822	-1.772	-2.155	-1.697	-2.382	-2.134	-2.077	-1.962	-2.036	-3.547	-0.949	-1.122	-2.372	-1.107	-2.694	-2.883	-1.663
26	0.542	-2.150	-1.525	-0.763	-0.526	-0.601	-0.822	-0.591	-1.767	-1.373	-1.390	-2.134	-2.077	-0.694	-0.736	-0.811	-0.949	0.557	0.509	0.521	0.451	0.456	0.022
27	-2.086	-2.453	-1.826	-2.094	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-3.222	-2.372	-1.107	-2.694	-1.213	-2.138
28	-0.512	-0.633	-0.924	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-2.077	-0.694	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	0.456	-0.698
29	0.542	-1.846	-1.826	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.355	-2.382	-0.772	-0.734	-1.962	-0.736	-0.811	-0.949	-1.542	-0.932	-1.107	-1.122	-2.883	-3.823
30	-1.299	-2.453	-4.230	-0.763	0.585	0.570	0.518	-0.591	-2.940	-1.373	-3.373	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-1.122	-0.932	-1.107	0.451	-1.213	0.253
31	-1.032	-1.543	-2.126	-1.207	-0.526	-0.601	-0.822	-0.591	-0.594	-1.373	-0.399	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-1.122	-0.932	-1.107	-1.122	-1.213	-0.943
32	-1.032	-0.330	-1.525	-1.650	-1.638	-1.771	-0.822	-0.591	-2.155	-2.680	-3.373	-0.772	-0.734	-1.962	-2.036	-0.811	-0.949	-1.542	-0.932	-2.734	-2.694	-1.213	-0.943
33	-2.606	-0.936	-0.623	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.373	-0.399	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.122	-2.372	-2.734	-2.694	-2.883	-0.943
34	-3.393	-1.846	-1.525	-1.650	-1.638	-1.771	-2.161	-2.953	-1.380	-2.680	-1.390	-2.134	-2.077	-3.231	-3.335	-2.179	-2.447	-4.061	-3.813	-1.107	-4.266	-2.883	-2.383
35	-0.764	-0.633	-1.525	-1.650	-0.526	-0.601	0.518	-0.591	-1.767	-1.049	-1.390	-0.772	-0.734	-0.694	-0.736	-0.811	0.549	-1.542	-0.932	-1.107	0.451	0.456	0.253
36	-0.245	-0.936	-0.623	-0.319	-0.526	-0.601	-0.822	-0.591	-0.594	-0.391	-0.994	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-0.703	-0.932	-1.107	0.451	0.456	-0.943
37	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
38	-1.032	-2.453	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-0.594	-1.049	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.962	-0.932	-1.107	-1.122	-1.213	-2.138
39	-1.032	-0.936	-1.224	-1.207	-0.526	-0.601	-0.822	-0.591	-1.767	-2.031	-2.382	-2.134	-2.077	-0.694	-0.736	-2.179	-2.447	-1.542	-2.372	-2.734	-2.694	-2.883	-2.383
40	0.542	-0.026	-0.623	-1.207	-0.526	-0.601	-0.822	-0.591	-0.982	-2.031	-0.994	-0.772	-0.734	0.575	0.563	0.556	-0.949	0.557	0.509	0.521	0.451	0.456	0.497
41	0.542	-1.846	-1.826	0.568	-2.749	-2.942	-2.161	-2.953	-0.207	-1.373	-0.994	-0.772	-2.077	-1.962	-0.736	-2.179	-0.949	0.137	0.509	0.521	0.451	0.456	0.497
42	0.275	0.277	0.279	0.568	-0.526	-1.771	-0.822	0.591	0.579	0.592	0.592	-0.772	-2.077	-0.694	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
43	-2.606	-2.453	-1.826	-2.537	-1.638	-1.771	-2.161	-1.772	-1.767	-0.391	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.382	-0.932	-1.107	0.451	-1.213	-0.698
44	-2.606	-2.453	-1.826	-2.981	-1.638	-1.771	-2.161	-1.772	-1.767	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-2.802	-2.372	-2.734	-2.694	-2.883	-2.383
45	-1.032	-2.150	-1.826	-1.207	-1.638	-1.771	-2.161	-1.772	-1.380	-1.373	-1.390	-2.134	-2.077	-1.962	-2.036	-2.179	-2.447	-1.542	-2.372	-2.734	-1.122	-1.213	-1.418
46	-0.764	0.277	-1.224	-0.319	-1.638	-1.771	0.518	-1.772	-0.594	-0.067	-0.597	0.590	-0.734	0.575	0.563	0.556	-0.949	-0.703	-0.932	-1.107	0.451	0.456	0.497
47	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
48	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
49	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
50	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
51	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
52	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
53	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
54	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
55	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
56	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
57	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
58	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
59	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
60	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
61	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
62	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
63	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
64	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
65	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
66	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
67	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
68	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
69	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
70	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
71	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
72	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
73	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
74	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
75	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
76	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
77	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
78	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
79	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
80	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
81	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
82	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
83	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
84	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
85	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
86	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
87	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
88	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
89	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
90	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
91	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
92	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
93	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
94	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
95	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
96	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
97	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
98	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
99	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
100	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
101	-2.606	0.580	-0.022	-2.537	-1.638	-0.601	0.518	-1.772	-2.155	-0.391	-2.184	-0.772	-0.734	-0.694	-2.036	-2.179	-2.447	-1.542	0.509	0.521	-2.694	-1.213	0.253
102	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
103	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
104	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
105	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
106	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
107	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
108	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
109	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
110	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
111	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
112	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
113	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
114	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
115	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
116	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
117	-2.606	-3.060	-2.427	-1.207	-0.526	-1.771	-0.822	-0.591	-2.940	-1.373	-2.382	-0.772	-0.734	-0.694	-0.736	-0.811	-0.949	-2.382	-2.372	-2.734	-2.694	-1.213	-2.627
118	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
119	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
120	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
121	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
122	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
123	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
124	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
125	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
126	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
127	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
128	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
129	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
130	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
131	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
132	0.542	0.580	0.579	0.568	-1.638	0.570	0.518	-1.772	0.579	0.592	0.592	-2.134	-2.077	-1.962	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
133	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
134	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
135	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
136	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
137	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
138	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
139	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
140	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
141	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

142	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
143	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
144	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
145	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
146	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
147	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
148	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497
149	0.542	0.580	0.579	0.568	0.585	0.570	0.518	0.591	0.579	0.592	0.592	0.590	0.609	0.575	0.563	0.556	0.549	0.557	0.509	0.521	0.451	0.456	0.497

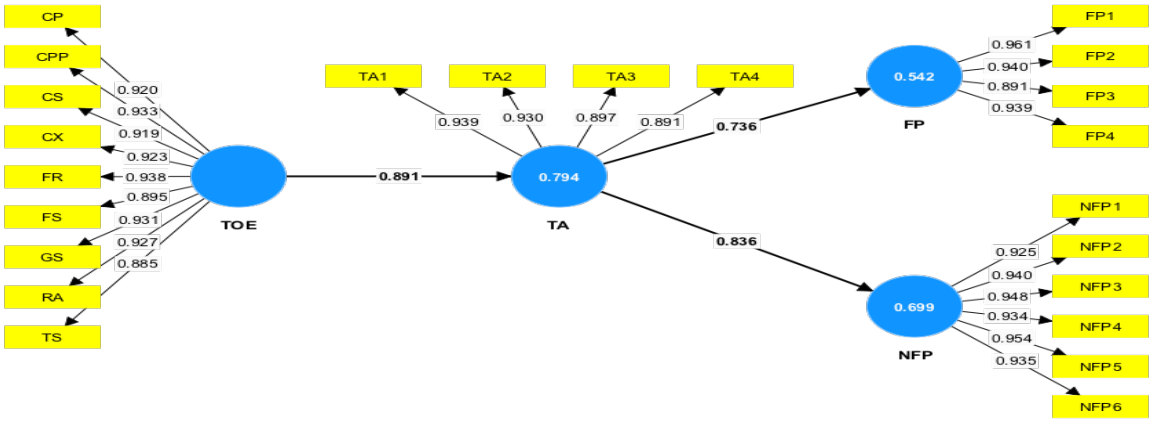
Appendix M:

First-order Model Result from SmartPLS 4.1



Appendix N:

Second-order Model Result from SmartPLS 4.1



Appendix O:

Certificate of Proofreading



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