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**SOCIAL CAPITAL, CRISIS MANAGEMENT READINESS, AND  
PERFORMANCE OF SERVICE SECTOR SMEs IN UNITED  
ARAB EMIRATES: MODERATING ROLE OF LEADERSHIP  
BEHAVIOR**

**HAZZAA MOHAMMED SAEED HASAN ALJNEIBI**

**DOCTOR OF PHILOSOPHY  
UNIVERSITY UTARA MALAYSIA  
2025**

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ARAB EMIRATES: MODERATING ROLE OF LEADERSHIP  
BEHAVIOR**

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**Thesis Submitted to The Ghazali Shafie Graduate School of Government in  
Fulfilment of The Requirements for The Doctor of Philosophy  
Universiti Utara Malaysia**



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## ABSTRACT

The objective of this study is to examine the impact of social capital and crisis management readiness on the performance of service sector SMEs in the United Arab Emirates. In addition, the moderating role of leadership behavior is also examined. The need for the study emerged from the COVID-19 crisis, which creates significant challenges for SMEs. To develop the framework, the study draws on the theoretical support of the Resource-Based View and Contingency Theory. The Resource-based View is used as underpinning theory, while Contingency Theory serves as supporting theory. A simple random sampling technique was used for data collection. The collected data was initially analyzed for reliability and validity. Upon confirming both reliability and validity, structural equation modelling (SEM) analysis was conducted using Smart PLS-3 software. The findings confirm that social capital and crisis management readiness have a significant impact on the performance of service sector SMEs. Moreover, leadership behavior significantly moderates the relationships between social capital and performance, as well as between crisis management readiness and performance of service sector SMEs. Thus, all the hypotheses were supported. The integration of the Resource-based View and Contingency Theory forms the main contribution and theoretical significance of the study. The findings are valuable for policy makers, as well as managers and owners of SMEs, as they provide the guidance on which factors require greater attention in order to achieve superior performance, especially during times of crisis. Finally, the limitations of the study are acknowledged, primarily focusing on the limitation of studying only the service sector SMEs.

**Keywords:** Crisis Management Readiness, Leadership Behavior, Performance of SMEs, Social Capital

## ABSTRAK

Objektif kajian ini adalah untuk mengkaji kesan modal sosial, dan kesediaan pengurusan krisis, terhadap prestasi PKS sektor perkhidmatan di Emiriah Arab Bersatu. Selain itu, peranan tingkah laku kepimpinan sebagai pembolehubah penyederhanaan juga dikaji. Keperluan untuk kajian ini muncul kerana krisis COVID-19 telah mewujudkan cabaran yang signifikan kepada PKS. Dalam usaha membangunkan rangka kerja, kajian inidisokong oleh teori Pandangan Berasaskan Sumber dan Teori Kontingensi. Pandangan Berasaskan Sumber digunakan sebagai teori asas, manakala teori kontingensi berfungsi sebagai teori sokongan. Teknik persampelan rawak mudah digunakan untuk mengumpul data., Data yang telah dikumpul pada mulanya dianalisa tahap kebolehppercayaan dan kesahan. Setelah disahkan kebolehppercayaan dan kesahan, analisa pemodelan persamaan struktur telah digunakan menggunakan perisian Smart PLS-3. Penemuan kajian mengesahkan bahawa modal sosial dan kesediaan pengurusan krisis mempunyai kesan yang besar terhadap prestasi PKS sektor perkhidmatan. Selain itu, tingkah laku kepimpinan menyederhanakan dengan signifikan hubungan di antara modal sosial dan prestasi, serta di antara kesediaan pengurusan krisis dan prestasi PKS sektor perkhidmatan. Oleh itu, semua hipotesis telah disokong. Integrasi Teori Pandangan Berasaskan Sumber dan Teori Kontingensi jugamembentuk sumbangan utama dan kepentingan teori kajian. Penemuan kajian ini sangat berharga terutamanya kepada penggubal dasar, serta pengurus dan pemilik PKS kerana ia memberikan panduan tentang faktor-faktor yang perlu diberikan lebih perhatian dalam usaha untuk mencapai prestasi yang lebih baik, terutamanya semasa krisis. Akhir sekali, batasan kajian ini juga dibincangkan, dengan memberi tumpuan kepada batasan yang wujud apabila kajian ini hanya menumpukan kepada PKS dalam sektor perkhidmatan sahaja.

**Kata Kunci:** Kesediaan Pengurusan Krisis, Tingkah Laku |Kepimpinan, Prestasi PKS, Modal Sosial



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## **CHAPTER ONE**

### **INTRODUCTION**

Currently in UAE there are several service sectors, small and medium enterprises (SMEs) that are performing low especially after COVID-19 because of lack of crisis management in them. SMEs are more vulnerable to crisis because of lack of financial strength and lack of capabilities of being innovative to deal in the volatile environment. In this regard social capital can be of great help which may help them in providing the required resources which they lack, to survive in crisis situations.

#### **1.1 Background of Study**

Small and medium-sized businesses have been successful around the world. Scholars widely accept that there are certain external and internal influences that are essential in business decision-making. These circumstances can greatly impact the outcome of decisions made by a business. Leadership in Small and Medium Enterprises (SMEs) is considered an umbrella that covers processes and technologies required for handling a crisis (Asif, Asad, Bhutta, & Khan, 2021).

Small and medium-sized businesses (SME) dominate the business sector in the United Arab Emirates (UAE). In UAE, SMEs are a driving force and represent 94% of the establishments in Emirates (Dubai SME, 2022). Out of the total SMEs 73% of the

SMEs operate in wholesale and retail stores. Only 16% of the SMEs deal in the service sector, which is extremely low. And 11% are in the industrial sector. Industrial and Services sectors are sustainable. SMEs in UAE provide employment to 86% of the labor force. At the same time SMEs contribute 60% to the Gross Domestic Product (GDP). This clearly shows the importance of the sector which has faced severe crisis during the COVID-19 crisis (Gerth, Ramiah, Toufaily, & Muschert, 2021; Zakaria, Sehgal, Watson, & Kamarudin, 2022), thus, identification of the important elements is critical for the survival and growth of the sector even during the times of crisis.

During the crisis of COVID-19 SME sector has significantly affected and half of the SMEs have faced severe losses, and even one third of the SMEs were under the fear of closure and some of them vanished (Sindakis & Aggarwal, 2022). The steps taken by the government to combat the pandemic adversely affected SMEs (Mansoori, Alsaud, & Yas, 2021). The main reason behind this significant decline was lack of crisis management readiness.

At the same time UAE is concentrated with expatriates, hence, social capital is also an issue for the owners of SMEs (Zahoor & Gerged, 2021). The Gulf is now growing, and it is doing so even more quickly than anyone could have anticipated. The biggest obstacles to their success are their respective cultures and languages. Therefore, Western industry must strive to build social capital with competitor Arabian nations that have industrialized.

As a result, leaders of SMEs may adopt crisis management methods used by organizations to generate useful information that may help their businesses thrive and

survive in crisis situations. Effective leadership can provide valuable insights that enable SMEs to anticipate the behavior of suppliers, customers, competitors, services, products, and the overall business environment with greater certainty, leading to better decision-making (Asad, Haider, & Fatima, 2018).

The increased uncertainty among service sector SMEs has led to the adoption of policies required for crisis management, as failing to do so may jeopardize the survival of organizations in the market. Generally, SMEs strive to attain a certain position in the market, which is essential for their growth and survival. In the face of uncertainty and crisis, effective crisis management policies and strategies can help organizations maintain their position and even gain a competitive advantage.

It is important to note that small organizations cannot be considered as simply smaller versions of large organizations, as they have different structures, management practices, resource availability, competition levels, and environmental responses in the market they operate. Thus, in a highly dynamic, volatile, and competitive business environment, the leadership of an organization plays a crucial role in maximizing the use of available resources, especially during crisis situations such as the COVID-19 pandemic. Effective leadership in SMEs can help them navigate the challenges and opportunities presented by the crisis and ultimately contribute to their long-term success and sustainability (Asad & Kashif, 2021).

Indeed, leadership behavior has gained considerable attention due to its increased importance in the success and sustainability of SMEs. Effective leadership can motivate and inspire employees, develop and implement strategic plans, and foster a

positive organizational culture, among other benefits. As a result, it is crucial for SMEs to have strong and effective leadership in place to navigate challenges and achieve their business goals (Asad, Asif, Bakar, & Sheikh, 2021).

The task of adapting to the current environmental conditions and enhancing the performance of service sector SMEs could be daunting, especially for small and medium-sized enterprises that are encountering difficulties in remaining competitive in the market. Developed nations have search engines such as Amazon, Google, and Apple that are emblematic of large industries that initially started as small enterprises during their incorporation.

Despite millions of Small and Medium Enterprises (SMEs) starting up, only a few firms achieve success through effective policies, whereas the majority face failure within the first five years of operation (Asad, et al., 2024). The global economy experienced a major upheaval between 2020 and 2022, leading many SMEs to feel discouraged about their prospects (Asad, Asif, Allam, & Sheikh, 2021; Fadhel, Aljalahma, Almuhanadi, Asad, & Sheikh, 2022).

Over the last two decades, the circumstances and viability for organizations have become more diverse, intricate, and uncertain (Sheikh U. A., Asad, Ahmed, & Mukhtar, 2020). Intense competition among enterprises compelling them to elevate their work standards, enhance their capabilities, and improve their competencies (Khan A. A., Asad, Khan, Asif, & Aftab, 2021). It is imperative for SMEs to set themselves apart in the market. Because of the competing business environment social

capital provides resources which are required especially during the times of crisis for the service sector SMEs (Aragón, Narvaiza, & Altuna, 2016).

To enhance their performance and competitiveness, dynamic firms must embrace the exponential growth of advanced technologies. A successful implementation of a creative and innovative business model is crucial in this industrial revolution, especially in the times of crisis because conventional ways become difficult to proceed, which heavily relies on social capital, collaborations, and crisis management readiness. This influence ultimately results in greater competitiveness and profitability for firms in the market (Almansour, Asad, & Shahzad, 2016).

Currently, the economy is leading the third industrial revolution in the business world. In a developing country like the Emirates, industrialization is considered the backbone of economic growth. However, in the Emirates the industrial proportion is very low. Therefore, the current challenging situation for the SMEs and lack of crisis management readiness and lack of social capital which caused a major decline and created several challenges for SMEs provide sufficient reasons to conduct research over the issue.

## **1.2 Problem Statement**

Small and medium enterprises (SMEs) are found to act as important suppliers to large organizations and as such they are considered amongst the most vital suppliers (Kanaan, Alsoud, Asad, Ta'Amnha, & Al-Qudah, 2024; Satar, Alharthi, Asad, Alenazy, & Asif, 2024). The importance of SMEs other than employment generation and GDP contribution can be understood from the fact that these SMEs support the

large firms (Alkhuzaie, et al., 2024). The performance of service sector SMEs of UAE is in a great challenge especially during and after COVID-19 (Sindakis & Aggarwal, 2022). A combination of factors such as an unskilled and low-paid labor force, ineffective marketing practices, and intense market competition are causing an increase in production costs which shows lack of preparedness for crisis management. Additionally, the significant reduction in the number of visitors during the COVID-19 pandemic has resulted in a sharp decline in sales and revenues and SMEs were most vulnerable to this as they also lack the support of social circle.

According to Zawya, 60% of the SMEs have shown a decline in profits and only 30 % reported no change in the profits and 10% reported a growth in profits during the COVID-19 crisis (TradeArabia, 2023). The decline in performance of service sector SMEs is not a short-term issue, as the pandemic has forced several businesses to permanently shut down. It will take time and effort to implement societal reform to eliminate or lessen them. On the other hand, other Gulf Council Cooperation (GCC) Countries embraced high-volume, low-cost manufacturing and contemporary (capital-intensive) technology. It can offer services with little profit and is dependent on the economy.

As a result of these challenges, the performance of service sector SMEs in the UAE is declining. SMEs represents 94% of the establishments in Emirates (Dubai SME, 2022). Out of the total SMEs 73% of the SMEs operate in wholesale and retail stores. Only 16% of the SMEs deal in the service sector, which is very low. And 11% are in the industrial sector and they are struggling desperately for survival (Mansoori, Alsaud, & Yas, 2021).

In today's business world, top management must operate in a marketplace that encompasses customers, requirements, and competitors. Organizational synergy in areas such as reputation and reliability can lead to growth potential through social capital (Salehi, Fahimi, Zimon, & Homayoun, 2022). Social capital involves building and maintaining positive relationships with stakeholders, which can facilitate knowledge acquisition, innovation, and a positive work atmosphere.

SMEs are known for their strong dependence on the networks in which they operate which are considered as their social capital. As a result, they tend to place a high value on investing in social capital. Social capital is characterized by shared values and a common business vision, and it is often cultivated and reinforced by the values and behaviors of the owner-managers of SMEs (Satar, Alharthi, Asad, Alenazy, & Asif, 2024).

Social capital can have both positive and negative effects on the performance of service sector SMEs. In cases where the power dynamics are unequal, stronger stakeholders may use their social capital to exclude weaker parties from their networks, which can lead to negative impacts. Therefore, it is important for SMEs to be aware of the potential negative impacts of social capital and to actively work towards creating a positive and inclusive network which influences the performance (Adler & Kwon, 2002). Social capital can also lead to nepotism, injustice and corruption (Sen & Cowley, 2013). Therefore, the controversial findings provide sufficient justification for further study of the factors influencing it (Baron & Kenny, 1986; Chmura Kraemer, Kiernan, Essex, & Kupfer, 2008; Zhao, John G. Lynch, & Chen, 2010).

This suggests that moderators should take leading behavior into account (Asad, et al., 2021). Although SMEs can achieve sustainable business growth with the effective and efficient use of social capital, few studies discuss how SMEs in emerging economies especially during the times of crisis yield beneficial outcomes because of effective leadership behavior, which help them to benefit further during crisis situations because leadership behavior keeps the employees motivated (Abdullahi, Anarfo, & Anyigba, 2020) during the times of crisis.

In addition, as leadership of SMEs is actively progressive, the role of leadership behavior of SMEs is crucial and cannot be ignored particularly in crisis situations (Engelen, Gupta, Strenger, & Brettel, 2015). Moreover, Walumbwa, Luthans, Avey, and Oke (2011) recognized the research gap connecting leadership behavior and social capital. Additionally, leadership behavior has hardly been studied in the past, but the leadership traits have mainly been studied (Asad, Asif, Bakar, & Sheikh, 2021; Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022). Moreover, Fadhel, Aljalahma, Almuhanadi, Asad, and Sheikh (2022) also stressed that leadership in crisis situations like COVID-19 plays a significant role and called for empirical research in the same relationship. Therefore, this study intends to address this gap by examining the moderating role of leadership behavior between social capital, crisis management readiness and performance of service sector SMEs, analyzing empirical data, and checking for the triangular effect. Furthermore, the study targets to inculcate and emphasize two theories - the resource-based theory and contingency theory - which influence its theoretical model. The integration of the two theories, especially with respect to UAE which is under researched in terms of SMEs and specifically service sector SMEs, is the main contribution of the study.



### **1.3 Research Questions**

The research questions are as follows:

1. To what extent does crisis management readiness influence the Performance of service sector SMEs in UAE?
2. To what extent does social capital influence the Performance of service sector SMEs in UAE?
3. How does leadership behavior moderate the relationship between social capital and performance of service sector SMEs in the UAE?
4. How does leadership behavior moderate the relationship between crisis management readiness and performance of Service sector SMEs in the UAE?

### **1.4 Research Objectives**

This research seeks to determine how leadership behavior moderates the effects of social capital, crisis management preparedness, and performance of service sector SMEs as defined in the objectives below:

1. To investigate the effect of social capital over Performance of Service sector SMEs in UAE.
2. To investigate the relationship between crisis management readiness and Performance of Service sector SMEs in UAE.
3. To examine how leadership behavior moderates the relationship between social capital and performance of Service sector SMEs in UAE.
4. To examine how leadership behavior moderates the relationship between crisis management readiness and Performance of Service sector SMEs in UAE.

### **1.5 Scope of Study**

The study aims to examine the impact of social capital and crisis management readiness on performance of service sector SMEs and evaluate the moderating effect of leadership behavior on these relationships. The study is conducted in the UAE, a dynamic and developing country, with the goal of identifying the key variables that may halt the improvement of SMEs. These key variables include social capital, crisis management readiness, leadership behavior, and performance of service sector SMEs and the scope of the study is limited to these variables only. All the emirates of United Arab Emirates are the part of population, and the questionnaire has been filled by the SMEs from all the emirates. The key focus was over the service sector because they were mainly affected during the COVID-19 crisis. The premise of the research is that SMEs, constrained by their capital resources, can leverage social capital to their advantage. Furthermore, the study focused on crisis management readiness which was missing due to which the economy and specifically the SME sector suffered a lot.

Therefore, the research aims to investigate how social capital and crisis management readiness along with the moderating role of leadership behavior can impact the performance of service sector SMEs in the UAE. The study suggests that social capital can be a valuable resource for SMEs, in addition to their financial capital and crisis management readiness can also act as a major resource especially in the time of crisis. Crisis management readiness is a skill and thus has been treated as a resource which fulfills the requirements as prescribed by RBV, i.e. valuable, rare, inimitable, and non-substitutable. Moreover, leadership traits have not been taken instead of leadership behavior which influence changes as per the situation which is more closely supported by contingency theory instead of any leadership theory, therefore contingency theory

has been used as a supporting theory along with RBV to develop the framework of the study. The designed research questions aim to investigate how the success of small and medium-sized enterprises (SMEs) in the UAE is influenced by crucial factors, namely social capital, crisis management readiness, leadership behavior, and performance of service sector SMEs in UAE. It examines the four critical elements of SMEs in the UAE, which include social capital, crisis management readiness, leadership behavior, and performance of service sector SMEs.

The core focus is on small and medium-sized enterprises (SMEs) that are involved in the service sector in the UAE. Specifically, SMEs with less than 250 employees operating within the country have been selected for examinations. The major reason for taking this 250 cut off point is that according to the government of UAE SMEs may have a maximum of 250 employees. The key reason behind choosing service sector SMEs is that in UAE majority of the SMEs belong to the service sector and service sector SMEs mainly deteriorated during the COVID-19 pandemic, and as the focus of the study is towards crisis management readiness, hence service sector being most vulnerable during COVID-19 pandemic have been chosen for the study.

### **1.6 Significance of Study**

Gaining a comprehensive understanding of the interconnections among social capital, leadership behavior, and performance of service sector SMEs is critical to enhance the effectiveness of SME owners and top managers in mitigating resource limitations. The objective of this study is to make a significant contribution to both researchers and practitioners by incorporating various paradigms. Therefore, research has two main contributions i.e., theoretical and practical.

### **1.6.1 Theoretical Contribution**

The study aims to gain a deeper understanding of how top managers in SMEs behave and their attitudes towards the implementation and functionality of SMEs. The influence of capitalist orientation and the degree of social capital on the business connections of top managers, as well as their leadership practices, with regards to performance of service sector SMEs, are recognized. However, there is limited theoretical and empirical evidence on the relationship between leadership behavior, social capital, and the performance of SMEs. Hence, this study targets to address the existing research gap and offer insights into the factors that determine the success of SMEs in the UAE. The results of this study can provide valuable insights to researchers and practitioners in the field of SME management.

That sounds like a comprehensive study that contributes to multiple areas of research. By investigating the behavioral intention of SMEs and conceptualizing the Resource Based View (RBV) and Contingency Theory (CT), the study provides valuable insights into the field of performance of service sector SMEs. Moreover, by expanding the moderating role of leadership behavior in new relationships, the study also contributes to the literature of leadership. It's always beneficial when research can have a significant impact on multiple areas of study

### **1.6.2 Practical Contribution**

Practically the study contributes to the existing literature in the following ways: First, it contributes to the literature of SME growth in emerging economies by identifying that the effective use of leadership behavior may direct SMEs to achieve sustainable growth and development.

As things stand, there isn't much data available to study the complex nature of the factors affecting the performance of service sector SMEs. By penetrating deeper studies, SME owners and top managers can identify the most effective tactics and strategies to enhance their competitiveness against larger corporations and multinational enterprises.

## **1.7 Definition of Terms**

The definitions of the terminologies are based on prior research studies and will be integrated into current research.

### **1.7.1 Performance of Service Sector SMEs**

The organization's capacity to use the resources at hand in an effective manner, with the aim of boosting sales, achieving strategic objectives, and attaining management's perceived success of the business in a global economy. The basis of performance of service sector SMEs is the perceptual thinking of the managers regarding improvement in the income of the organization, and improvement in output perceived by the number of items sold by an organization. Increase in investment and full-time staff in the organization (Aloulou, 2019).

### **1.7.2 Social Capital**

The idea of social capital is thought to be organized with structure, cognition, and trust to encourage synchronic actions and foster contentment and satisfaction on a broad scale (Aragón, Narvaiza, & Altuna, 2016).

### **1.7.3 Crisis Management Readiness**

The definition of crisis readiness pertains to an organization's effectiveness in preparing for both immediate and future crises. Specifically, coping with immediate disruptive events external to the organization constitutes present crisis readiness, while prospective crisis readiness refers to an organization's ability to predict and manage potential destructive events external to the organization (Falamarzi, Udin, & Siam, 2021).

### **1.7.4 Leadership Behavior**

It outlines the methods that an organization employs to oversee its operations. These methods involve the creation of plans, coordination of efforts, leadership, and communication, all of which are aimed at promoting collaboration with external organizations and encouraging the organization's workforce (Asif, Asad, Bhutta, & Khan, 2021).

## **1.8 Organization of the Thesis**

Its structure is comprised of six distinct chapters. The initial chapter serves as an introduction and outlines important aspects such as the problem statement, research questions, research objectives, scope and significance of the study, and definition of key terms. Chapter two, on the other hand, centers on the empirical findings from prior literature that pertain to the correlation between performance of service sector SMEs, social capital, crisis management readiness, and leadership behavior.

In addition, chapter two delves into the underlying theory that supports the research findings. Moving forward, chapter three presents a comprehensive account of the

research methods employed. This includes the research framework, hypothesis development, instrument measurement, research design, research population, sample size, sampling method, and data analysis technique. Furthermore, this chapter reports on the reliability testing that was conducted during the pilot or preliminary study.

Chapter four provides a detailed account of the statistical analysis conducted on the collected data, which encompasses the examination, screening, and preparation of the data. The measurement model and structural model were then evaluated using PLS-SEM through the Smart PLS 3.0 software, and hypotheses results based on the evaluation of the structural model are reported. Chapter five examines the research findings in the context of the research objectives and hypotheses. This chapter also discusses the theoretical and practical contributions and implications of the study, research limitations, and potential future research directions. Finally, chapter six provides the conclusion of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter deals with the literature that has been conducted over the performance of service sector SMEs. Based on prior knowledge, the critical factors that influence performance of service sector SMEs are identified and discussed along with the theories that provide underpinning justifications for the development of theoretical framework. To identify and understand such phenomena, the research considers several independent variables, such as social capital and crisis management readiness. Additionally, given the inconsistencies found in the literature, leadership behavior is discussed as a potential moderating variable. Furthermore, this chapter discusses the underlying theories of the study.

#### **2.2 Underpinning Theories**

This study aims to provide valuable contributions to two philosophies, namely the resource-based view and contingency theory. The framework integrates both to enhance performance of service sector SMEs by leveraging intangible resources and leadership behavior.



### **2.2.1 Resource Based View**

The perspective used in this study is based on the Resource-Based View (RBV). According to Wernerfelt's definition, a resource refers to all the assets, capabilities, organizational processes, organizational attributes, information, knowledge, and other factors that an organization possesses and controls to create and implement strategic plans that increase its efficiency and effectiveness. The RBV is a theoretical framework that suggests that an organization's competitive advantage and sustained success are derived from the unique resources and capabilities it possesses, rather than its position in the market or industry (Asad, Aledeinat, Majali, Almajali, & Shrafat, 2024). Social capital and crisis management readiness is supported by the RBV because it is the key resource of the SMEs. Furthermore, the theory is enriched by adding the supporting theory which is contingency theory which covers the leadership behavior which is contingent to the crisis situations like COVID-19.

In this context, resources are considered valuable if they contribute to the organization's ability to create value for its customers or stakeholders, rare if they are not easily acquired by competitors, inimitable if competitors are unable to replicate them, and non-substitutable if there are no alternatives to the resources. Considering the importance of RBV to support the argument raised for social capital, RBV is more appropriate to be used as underpinning theory. The RBV emphasizes the importance of identifying and developing valuable, rare, inimitable, and non-substitutable resources to achieve competitive advantage and superior performance (Satar, Alharthi, Asad, Alenazy, & Asif, 2024).

The study aimed to explore how social capital and crisis management readiness can be utilized as organization resources to enhance performance of service sector SMEs after a crisis. The RBV perspective, introduced by Wernerfelt (1984), suggests that an organization's success is primarily predicted by its assets and skills. The RBV theory suggests that organizations possess various resources and capabilities, which are essential for developing effective organizational strategies and gaining a competitive advantage which helps in gaining performance (Sulaiman & Asad, 2023). In this study, social capital and crisis management readiness were viewed as capabilities that could produce competitive advantage for performance of service sector SMEs in the aftermath of a crisis.

RBV argues, specifically, that an organization's distinctive resources can help it maintain a competitive edge. RBV simply emphasizes the internal assets of businesses (Ahmed, Khuwaja, & Othman, 2018). The rationale for adopting RBV as the basis for this study is aligned with the pecking order theory. This theory proposes that organizations typically prioritize financing their requirements through an ordered approach, starting with internal resources and moving towards external sources only as a last resort (Darcy, Hill, McCabe, & McGovern, 2014; Ta'Amnha, Magableh, Asad, & Al-Qudah, 2023).

Given the time and resource limitations that SMEs suffer during economic downfall, it was believed that variables based on the RBV framework would be more appropriate for accommodating the need for swift responses during such disruptions. This is because an organization's internal resources, which are under its control, are more reliable than external resources in recessionary contexts (Kanaan, Alsoud, Asad,

Ta'Amnha, & Al-Qudah, 2024). The use of RBV as a theoretical foundation aligns with the prior studies which emphasized the importance of the skills as resources (Darcy, Hill, McCabe, & McGovern, 2014; Satar, Alharthi, Asad, Alenazy, & Asif, 2024). Having the advantage of internal resources allowed organizations to have the flexibility to quickly reorganize or reconfigure their resources, enabling them to react promptly during times of recessionary disruptions. This advantage is believed to be more suited for the sensitive response time required during these periods as internal resources, as opposed to external resources, can be controlled (Asad, Asif, Sulaiman, Satar, & Alarifi, 2023). It is argued that the unpredictable nature of disruptive events does not allow entrepreneurs to wait and seek external resources, thus necessitating the need to confront these events using their internal resources.

When searching for resources, it is important to consider the compromise between the risk associated with attaining external assets and the potential opportunity costs of not seizing available opportunities (Tsai & Liao, 2016; Khan A. A., Asad, Khan, Asif, & Aftab, 2021). This idea corresponded with the (Ramon-Jeronimo, Florez-Lopez, & Araujo-Pinzon, 2019) claim that, in a critical environment, internal processes and routines play a crucial role in enabling organizations to renew their stock of organizational capabilities.

Makhloufi, Laghouag, Meirun, and Belaid (2021) argued that dynamic capabilities are based on changing an organization's underlying resource base. This emphasis on internal resources is also consistent with the resource-based view theory, which posits that homogenous resource possession among organizations is used by all managers to develop value-creating strategies to achieve organization performance (Gupta, Tan,

Ee, & Phang, 2018; Asad, Asif, Khan, Allam, & Satar, 2022). Moreover, since these actions were primarily initiated internally and were tacit in nature, they provided organizations with a better leverage of RBV's competitive advantage, which is valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991).

The theory of resource-based view emphasizes the internal assets of an organization, such as social capital, to understand the key drivers of organization performance. This creates fertile ground for the theory of sustainable competitive advantage by utilizing unique and valuable resources to achieve superior performance (JimAndersén, 2021). The conventional social capital theory emphasizes the function of social capital as a collective or individual asset for society, rather than concentrating on the individual organization level (Purwati, Budiyanto, Suhermin, & Hamzah, 2021).

Therefore, this research aims to extend the resource-based view theory by examining the influence of social capital on organization performance in times of crisis. The resource-based view theory has become a widely discussed approach for achieving performance, particularly in situations where resources are scarce (Asad, Aledeinat, Majali, Almajali, & Shrafat, 2024). Wiklund and Shepherd (2003) highlighted the issue of resource constraints, which is a common problem for organizations that adopt a resource-based approach, especially for SMEs.

These are linked to an organization's social capital with its stakeholders and partners. These forms of capital reflect the organization's management system, in which formal and informal relationships serve as a source of integrated and coordinated management. The primary expectation from these sources is to deliver precise and

timely information. Moreover, the attainment of favorable and feasible working conditions is an added advantage in achieving desired objectives and superior performance (Ahmed, Khuwaja, & Othman, 2018).

According to Makhoulfi, Laghouag, Meirun, and Belaid (2021), discrepancies and disruptions in social capital can be a sign of organizational crisis. Many organizations invest in communication programs and social capital because of this belief. Social capital is a vital topic in the resource-based view theory. Early-stage organizations with resource-based effects tend to benefit more from research and development investment, while a conservative approach is more appropriate. Positive social capital can provide organizations with better access to information and create a positive work environment, leading to higher performance.

In times of resource scarcity or disruption, organizations tend to adopt more competitive practices. This view is in line with the Schumpeterian perspective on small and medium enterprises, which emphasizes seizing opportunities despite limited resources. The interplay between the two theories is crucial in determining performance of service sector SMEs.

### **2.2.2 Contingency theory**

Contingency theory suggests that there is no one-size-fits-all approach to managing businesses or making decisions. The efficacy of an organization is contingent upon the leadership style and its congruence with the circumstances and context in which the organization functions (Purwati, Budiyo, Suhermin, & Hamzah, 2021). Asad et al. (2021) highlighted the importance of leadership in molding and impacting the actions

and decisions of businesses. A noteworthy point here is that this research focuses over leadership behaviors instead of leadership traits, hence the leadership behavior of adaptability in times of crisis is more supported by contingency theory instead of any leadership theory.

Moreover, the failure of other theories to integrate leadership behavior as a factor that influences the organization's survival has led to the emergence of contingency theory. This addition of contingency theory in the form of leadership behavior is the key contribution of the study as RBV fails to address leadership behavior which has significant potential to influence performance (Asad, Asif, Allam, & Sheikh, 2021). The two underlying assumptions of the Resource-Based View (RBV) - heterogeneity and resource immobility - that account for the organization's capacity to achieve a large market share are viewed as static (Asif, Asad, Bhutta, & Khan, 2021). As a result, the organization's ability to generate valuable resources in the future, as well as how the leadership's actions impact the organization's resources, have been overlooked (Bhaduri, 2019). According to the contingency theory, corporations are organic entities. Therefore, there is an association of interdependence within and between its various subsystems, as well as between the organization and the leadership behavior (Alharthi & Khalifa, 2019).

Several contingency plans, including business strategies, have been created (Mole, North, & Baddock, 2017), organization design (Shirokova, Bogatyreva, Beliaeva, & Puffer, 2016), and decision making (Effendi & Kusmantini, 2015). The contingency theory stands in opposition to the idea of universal management principles. Instead, it

suggests that organizations should tailor their planning, goal setting, and policymaking to fit the specific leadership behavior that is present within their organization.

This study employs the contingency theory, which proposes that organizations must adjust to leadership behavior and seize potential opportunities, even during a crisis (Fadhel, Aljalalma, Almuhanadi, Asad, & Sheikh, 2022). To successfully navigate a crisis, business organizations need to adapt to changes by reconfiguring and integrating their resources to align with market demands. The contingency theory suggests that this can be achieved through an adaptive resource-based approach that accommodates different leadership behaviors.

### **2.3 Social Capital**

Social capital refers to the network of relationships, trust, and norms that exist between individuals, organizations, and institutions. These connections can lead to the exchange of valuable resources, such as information, expertise, and support, which can ultimately enhance the performance of the organization. During times of crisis, social capital can play a critical role in helping businesses to survive and recover. Strong partnerships and collaborations can provide access to necessary resources and expertise, while a positive and proactive mindset among top management can help to navigate uncertain and challenging circumstances (Asad, et al., 2021).

The primary idea behind social capital is that it is a costly resource. The term "social capital" alludes to a group of companies that use consistency, unity, and structural association as directional indicators. From society to organization posture, social capital is increasing substantially. In contrast to Newman, Schwarz, and Borgia (2014),

who regarded social capital as a public smart that integrates into the social system, Liu and Lee (2015) highlighted social capital's profitability and effectiveness as a private smart that springs trust among cluster members and supports stable relationships with respect and repute.

Social capital plays a significant role in enhancing the performance of service sector SMEs by promoting knowledge dissemination and collaboration within or between businesses, enabling them to achieve their corporate goals effectively. Measuring social capital, groups of people or organizations, such as clients, partners, suppliers, rivals, associations, intermediaries, and friends, as well as private and public support organizations, can be taken into consideration.

However, in some cases, organizations might exploit relationships to their advantage rather than cooperate, and shared values and standards might not be present. Moreover, Rass, Dumbach, Danzinger, Bullinger, and Moeslein (2013) suggested that social capital can also promote creativity. Thus, a precise understanding of social capital as a valuable resource that can be a public or private good is essential, and its externalities and negative and positive effects should be considered to ensure organizational success. For instance, in a crisis, two key factors, namely, the mindset of top managers and the ability to establish strong partnerships, can influence the organization's survival process. Therefore, organizations must effectively leverage their social capital to facilitate these factors and enhance their crisis readiness (Setini, Yasa, Supartha, Giantari, & Rajiani, 2020).



From a business perspective, social capital indicates an advantage in mobilizing social capital with higher profitability in the marketplace (Rouziès & Hulland, 2014). Through making it easier to understand the input and output markets, shared data lowers contract costs and ethical risk. Consequently, social capital and life satisfaction are both expected to be able to improve culture's structure and encourage group decision-making and actions (Menike, 2020). The concept of social capital theory is transformed into some variables as latent variables.

In 2021, Purwati, Budiyanto, Suhermin, and Hamzah proposed that social capital encompasses structure, cognitive abilities, and trust, which are believed to facilitate collective actions aimed at promoting happiness and overall life satisfaction. However, this concept has been somewhat ambiguous due to difficulties in operationalizing it, particularly when examining it at the community level. In 2014, Rouzies and Hulland put forward the idea of social capital as a collection of networks that provide shared knowledge and resources across different groups and organizations. The following section will explore various issues related to measuring social capital, both in general and within the specific context of small and medium-sized enterprises (SMEs).

### **2.3.1 Structural Social Capital**

The structure of social capital pertains to the pattern of social relationships among SMEs, specifically the ties within their networks (Satar, Alharthi, Asad, Alenazy, & Asif, 2024). The dimension of social capital involves tangible connections and shared beliefs and values among individuals in a social network, which can benefit the performance of businesses. Chen, Liu, Wei, and Gu (2018) proposed a holistic approach to understanding how organizations leverage their social capital to gain a

competitive advantage. Salehi, Fahimi, Zimon, and Hodayoun (2022) observed that direct ties, such as those between entrepreneurs, are the most common social structure. In contrast, Guerrero, Cayrat, and Cossette (2022) argued that the development of social capital depends on various factors, including the specific qualities and industry knowledge of an organization's human resources.

Tasavori, Zaefarian, and Eng (2018) noted that the greater number of channels offers a wider range of information in decision-making scenarios for family businesses, indicating the decision-making process at the governance level. Satar, et al., (2024) highlighted that the basis for superior performance is a network structure that allows data to access information, wealth, and opening.

According to the social capital theory proposed by Clopton (2011), social structure attributes to both direct and close access in social relationships. Robust networks comprising of linked sub-networks as noted by Collet and Hedström (2013). Yet, the theory of communication faces many challenges, such as lopsided messaging, relationship management, and accountability.

### **2.3.2 Cognitive Social Capital**

The concept of social capital comprises two distinct dimensions - cognitive and structural. The cognitive dimension of social capital is rooted in the shared values and beliefs of a group, which facilitates efficient communication and exchange of resources. In fact, Clopton (2011) even described social capital as "one heart, one mind, one body," with the cognitive aspect being represented by "one mind." This dimension of social capital is shaped by the collective experiences of the group,

resulting in a shared identity and culture. Asif, et al., (2016) further added that investing in knowledge can increase one's access to information, highlighting the importance of cognitive social capital in information-sharing and decision-making processes.

In the context of small and medium-sized enterprises, owner/manager interactions within the organization can enhance organization performance and create substantial value. Social capital, characterized by strong cohesion, is an essential factor in achieving this. This type of social capital is composed of structure, cognition, and trust, which can be measured (Laursen & Salter, 2006). This suggests that certain constructive work environments may include measures to address workers who slow down or demotivate others (Asad, Asif, Allam, & Sheikh, 2021).

Setini, Yasa, Supartha, Giantari, and Rajiani (2020) recognized that the use of association mechanisms, such as those utilized by the advertising and sales divisions, can enhance social capital within different departments but excessively strong social capital can lead to joblessness in the transfer of information and require selling skills to drive performance. Asrar-ul-Haq et al. (2019) recognized the risk of ethical disconnection, due to intellectual factors. Meanwhile, Liu and Lee (2015) argued that cognitive limitations can exploit social capital due to the exponential impact that social capital comprises (Asad, Asif, Bakar, & Sheikh, 2021).

### **2.3.3 Trust**

Establishing a stable social order relies heavily on trust over the social capital, which is a crucial component of social capital. In their study, Allam, Asad, Ali, and Ali (2021)

proposed a hierarchy of social order, starting with reliance and progressing towards reciprocity, responsibility, and anticipation. This hierarchical orientation fosters precise connections that contribute to the development of trust and dependability, which in turn are associated with shared information and harmonious relationships among SMEs (Li, Cai, Zhu, Huang, & Shi, 2012). However, Hammami, Ahmed, Johny, and Sulaiman (2021) posed a question about whether trust precedes social capital or if social capital comes before trust.

As a result, an increase in social capital corresponds to higher levels of trust over social capital, which contributes to the reputation of the organization. Setini, Yasa, Supartha, Giantari, and Rajiani (2020) highlighted the cooperative benefits of trust relationships and performance. Inter-group trust is crucial in promoting collaborative action and maintaining group identity. Trust over social capital can be established individually based on personal preference or estimation, but collective trust depends on the commitment of all members. A trust-based relationship is formed when one member perceives the other as not posing a threat, or when the risk is deemed acceptable (Purwati, Budiyanto, Suhermin, & Hamzah, 2021).

## **2.4 Crisis Management Readiness**

A crisis can be defined as any event that carries a high level of risk and has potentially negative consequences (Beliaeva, Tatiana, Wales, & Gafforova, 2020). Although some crises, such as economic or financial crises, may be anticipated, most crises are unlikely to occur and happen when there is very little expectation of their occurrence. A crisis can be very expensive, hazardous, and create a significant amount of ambiguity and apprehension among stakeholders (Krishnan, Ganesh, & Rajendran,

2022). Organizations operate in a competitive market, and a crisis can arise, causing tensions to develop both internally and externally. Such crises can pose a threat to the legitimacy and survival of the organization. Therefore, it is imperative to handle such situations rather than consider it as an option, and the best approach is to always be prepared for any crisis that may arise (Bhaduri, 2019).

An organizational crisis signals a threat to the stability and legitimacy of the system (Zaher, Ahamed, Ganesan, Warren, & Koshy, 2021). A landslide that leads to the collapse of high-rise buildings will impact developers, hospitals, suppliers, buyers, communities, and potentially insurance companies (Vlados & Chatzinikolaou, 2020). The consequences of a crisis can vary depending on the nature of the problem, with some immediate effects while others may be delayed. However, the costs are always significant and difficult to quantify. Therefore, it is essential to be prepared for any potential crisis by having a proactive crisis management plan in place. (Soininen, 2013). The cost of surviving a severe crisis may be high, but it is necessary for the organization to survive.

There is a growing body of evidence that highlights the importance of effective crisis management in government organizations. This has led to increased interest and research in the field of crisis management in government (Shear, Ashraf, & Sadaqat, 2021; Rapanta, Botturi, Goodyear, Guàrdia, & Koole, 2020; Piedade & Warnock-Smith, 2021). There is a sustainability risk as a consequence of the public sector's crisis (Marques-Quinteiro, Vargas, Eifler, & Curral, 2019; Asad & Ahmed, 2024), owing to economic pressures (Hvass, 2013), and substantially elevated the expectations of the stakeholders (Bhaduri, 2019).

The study has proposed and extended a theoretical framework of social capital and contingency theory, including leadership behavior, to investigate how leadership influences both the preparedness of crisis management and the performance of service sector SMEs during crises.

Given the challenges posed by COVID-19, it is reasonable to assume that being prepared with precautionary measures will aid in responding effectively to any crisis that may arise (Beliaeva, Tatiana, Wales, & Gafforova, 2020). Crisis management readiness refers to an organization's preparedness for the actions that need to be taken when a crisis occurs (Krishnan, Ganesh, & Rajendran, 2022).

## **2.5 Leadership Behavior**

The research centers on leadership behavior within organizations, with a particular emphasis on planning, coordination, communication, and collaboration with external organizations across cultural and national boundaries to achieve tasks and responsibilities. Multiple measures have been employed to assess leadership behavior in the study. Asif, Asad, Bhutta, and Khan (2021) assert that effective organizations display distinctive behaviors that are strongly linked to leadership.

In the pursuit of effective decision-making and project management, Amjed and Tirmzi (2016) proposed a framework that prioritizes the well-being of the organization during any kind of crisis. Thus, recognizing the impact of leadership behavior on system thinking during the crisis is mandatory. This framework also aims to enhance strategic interdependencies. Similarly, Asad, Asif, Bakar, and Sheikh (2021) emphasized the importance of identifying, controlling, influencing, and utilizing

resources, personnel, expertise, and knowledge across diverse cultures and nations, which becomes even more important during the crisis situations.

Achieving this requires organizations to be able to integrate and differentiate diverse information, interpret new patterns of relationships and meanings, and navigate ambiguous, uncertain, vague, and unfamiliar work environments to comprehend complex information (Asad, et al., 2021). Organizations that operate in multicultural economies such as the UAE are required to navigate various factors and make decisions that involve maximizing partnerships, cross-cultural collaboration, and engaging diverse stakeholders (Liu Y. , 2013; Asad, Asif, Allam, & Sheikh, 2021).

Asad, Aledeinat, Majali, Almajali, and Shrafat (2024) emphasized that organizations need to recognize and appreciate the importance of cultural diversity, and adapt to the political, economic, and cultural differences that exist. In addition, organizations must collaborate with teams belonging to various backgrounds that span both physical and cultural restrictions, because caring the employees during the crisis situations is even more critical and becomes crucial especially for the countries which are highly dependent over the expatriates like UAE (Asad, Asif, Allam, & Sheikh, 2021; Chethiyar, Asad, Kamaluddin, Ali, & Sulaiman, 2019; Asad, Asif, Bakar, & Sheikh, 2021). To be successful in a competitive environment, organizations must establish flexible organizational structures, processes, and shared infrastructure that can accommodate the unique challenges and opportunities that arise from working across different cultures, political systems, economic conditions, legal frameworks, and ethical standards especially during the crisis situations.

In terms of leadership, it involves expanding organizational standards that are compatible with other cultures, delegating authority and assigning tasks across cultures, selecting and motivating individuals from a diverse talent pool, and providing cross-cultural training (Asif, Asad, Bhutta, & Khan, 2021). Leaders can inspire and encourage their employees to work towards achieving the goals and objectives of the organization (Haider, Asad, & Fatima, 2017).

Leaders who are able to motivate people through incentives or other forms of inspiration in multicultural environments demonstrate respect and appreciation towards differences, and build trust among employees across diverse cultures (Engelen, Gupta, Strenger, & Brettel, 2015; Asad, Majali, Aledeinat, & Almajali, 2023). Effective cross-cultural leadership entails the ability to collaborate with diverse teams, which can lead to achieving organizational objectives and enhancing performance. Inspirational leaders are skilled at using persuasive language and emotional appeals to motivate and engage employees. Additionally, leaders who value and respect cultural differences can build trust and respect among team members from different cultural backgrounds.

## **2.6 Performance of service sector SMEs**

The effectiveness of an organization is reflected in how well it accomplishes its goals. Since the organization's founding, performance evaluation has been ongoing, implying continuous success (Asad, Asif, Bakar, & Altaf, 2021). Problem-solving techniques and performance reviews show that an effective organizational structure is in place. Even poorly performing companies start to improve their performance by implementing the best practices or those used by profitable companies (Majali,



Alkaraki, Asad, Aladwan, & Aledeinat, 2022). This simultaneous, instantaneous procedure results in efficiency and growth.

The growth and prosperity of a business align with the neoclassical economic theory, which posits that businesses operate with the objective of revenue maximization (Asad, Asif, Allam, & Sheikh, 2021). Organizations that were founded with the goal of meeting human needs can measure their success by how well they meet the market's requirements, which can come from many different perspectives, including those of shareholders, human resources, consumers, or communities (Haider, Asad, Atiq, & Fatima, 2017; Qalati, Ostic, Sulaiman, Gopang, & Khan, 2022). Through comparison with other organizations at a particular stage, this impression is also used to determine an organization's economic strength and competitive advantage.

Due to the existence of various ideological perspectives, there is a need to consider multiple performance metrics that hold promise. Market-based measures differ from accounting measures. Market-based measures reflect a shareholder's expectations and anticipations regarding the future, whereas accounting measures reflect evaluations from the previous period.

Achieving success by growing markets is thought to be possible through organizational efficiency. Businesses that are based in the UAE frequently do business with other nations. Small to medium-sized businesses typically encounter difficulties like a lack of resources, both human and financial, to advance the performance of their enterprises (Satar, Alharthi, Asad, Alenazy, & Asif, 2024). However, it is crucial and

essential for SMEs to pool their resources with those of other businesses to survive, grow, expand, and modernize.

Performance and modernization have limited the effect of the analysis of the Five Forces in the industry (Ta'Amnha, Alsoud, Asad, Magableh, & Riyadh, 2024). The model's guiding principles for a successful competitive strategy are less effective than they once were (Porter M. E., 2007; Porter, 2008; Sulaiman & Asad, 2023). Top managers must, however, exercise caution when applying models. The model's benefits include helping people understand what aspects of an organization are flexible and what remain constant during times of change like COVID-19 (Fadhel, Aljalahma, Almuhanadi, Asad, & Sheikh, 2022). Snowden and Stonehouse (2006) explained how Porter believed that high-tech collaboration remains associated with a strategic advantage, with social capital being a vital component in facilitating this development. SMEs social capital can be a dominant approach while evaluating performance (Lee & Hallak, 2020). In other words, SMEs can overcome the shortage of resources by forming alliances with local and foreign partners. Such alliances can significantly impact SMEs' performance in competitive markets through effective configuration strategies (Khaliq, Rehman, Roomi, Rehman, & Irem, 2014; Asad, Asif, Sulaiman, Satar, & Alarifi, 2023). On the contrary, scholars have emphasized the lack of nominal conformity regarding the nature of the relationship between performance of service sector SMEs.

### **2.6.1 Measurement Determinants and Aspects of SMEs Performance**

Several studies have investigated the factors that influence SMEs' performance using various organization resources. Asrar-ul-Haq et al. (2019) explored the mediating role

of social capital in this context. Within the context of macroeconomic success, SMEs are correlated with their capacity to increase employment (Porter M. E., 2007). Self-employment is highly admired in SMEs, as it enables entrepreneurs to quickly leverage their competencies and adapt to changing business circumstances, thereby allowing them to realize prompt rewards. As newer small and medium organizations are established, chances of employment increase. Although the influence of SMEs in job creation is predictable, many developing organizations still face challenges (Asad , Haider , Akhtar , & Javaid , 2011; Asif, Asad, Kashif, & Haq, 2021).

Profit serves as a key indicator of sustainability; based on its favorable characteristic, this indicator depicts organization productivity and abundance (Awain, Asad, Sulaiman, Asif, & Shanfari, 2025). This ratio demonstrates how an organization manages its assets to make a profit. Profit is recommended as the main and fundamental performance metric in some references (Sulaiman, Asad, Awain, Asif, & Shanfari, 2024). For instance, profit is not just relevant for measuring short-term financial performance (Asad, 2011), but also to profitable drift and long-term revenue generation (Asad, Haider, & Javaid, 2010; Ullah, et al., 2021). Long-term profit trends show options with their substantial impact.

The sales increase is well known as a measure of an organization's commission turnover, which shows whether the organization is receiving a sufficient return on its sales (Sulaiman, 2025). An organization with slow sales growth faces a cash flow problem because markup pricing is insufficient to pay costs. Sales growth is a measure of short-term financial success, and many businesses are eager to use it to their advantage.

Furthermore, companies undergo varying levels of sales growth in distinct economic circumstances. It is crucial for performance metrics to be aligned not only with the organization's strategy but also with the complexity of the industry and the external situation in which it operates (Bilal & Sulaiman, 2021). Asad, Haider, and Fatima (2018) emphasized the significance of employees' perception of their organization in comparison to their closest competitors, while Asad and Kashif (2021) examined perception-based indicators of effectiveness and efficiency concerning performance and achievement during times of crisis.

Asad et. all., (2022) made a distinction between the approach used for measurement and what is being measured. In measuring performance of service SMEs, both subjective and objective methods are used to evaluate both internal and external perspectives (Khalil, Asad, & Khan, 2018). Objective measures typically involve accounting-based reports, such as productivity and sales revenue, which are unimportant for researching SMEs (Israr, Asad, Altaf, & Victor, 2021). These objective measures are suitable for monitoring public organizations (Khan A. A., Asad, Khan, Asif, & Aftab, 2021). However, only a limited number of public organizations that possess a developed culture and robust management systems can rely on their results by internal inspections.

Economic success also demonstrates how effectively an organization uses its resources to generate revenue or profits (Kashif, et al., 2020). Prior to the 1980s, financial goals were general performance dealings, but since then, many researchers have thought carefully about using more comprehensive and comprehensive measures to study

performance (Asad, Altaf, Israr, & Khan, 2020). Most of the forthcoming ample measures are inapplicable to SMEs.

For SMEs, the primary and fundamental metrics include sales growth, profit, income from sales, the rate of new market entry, or performance analysis (Asad, Asif, Bakar, & Altaf, 2021). Export sales growth and export profit are well-known indicators of an organization's performance, particularly when revenues soar drastically above the level required for sufficient sales growth and total resources (Khan S. N., Asad, Fatima, Anjum, & Akhtar, 2020). The implementation of the performance measurement system despite of external and internal business eventualities is what accounts for the difference in these measures between sales growth and profits, whereas new market entrance speed specifically illustrates the influence of effective advertisement and promotion ability (Ta'Amnha, Magableh, Asad, & Al-Qudah, 2023).

Additionally, forecasting, planning, controlling, learning, training, IT use, age, experience, and education of the individuals as variables affecting organization performance generally and in crisis situations have been studied by researchers (Haider, Asad, & Aziz, 2015; Bowers, Hall, & Srinivasan, 2017; Alharthi & Khalifa, 2019). Like this, efficient entrepreneurship, suitable human resource management, the use of marketing data, and information technology application have all been cited as factors influencing organization success (Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022).

Another research indicates that governance mechanisms like family ownership, managerial ownership, block holder ownership, board size, independent administrators, dual leadership, director age, and director qualification were used to examine performance (Alkhuzaie & Asad, 2018). Like this, innovative-mediated transformational leadership has been used to assess the success of SMEs. (Asad, Asif, Bakar, & Sheikh, 2021). The ensuing discussion covers definitional concerns, various independent variables influencing organization performance, and aspects of organization performance, particularly that of SMEs in times of crisis.

## **2.7 Research Gaps**

While the consequences of a crisis are often negative, the "silver lining effect" recommends that there is a possibility of positive outcomes (Vasilev, 2020). Alpaslan (2009) developed a stakeholder theory of crisis management, which provides a framework for understanding the relationships between stakeholders during a crisis. However, while this theory has been influential, few studies have focused on integrating the concept of proactive crisis management into this framework.

Petzold, Barbat, Pons, and Zins (2019) asserted that attribution serves as a valuable framework for comprehending, assessing, and predicting an incident, as well as devising strategies to handle any negative outcomes (Khushi, din, & Sulaiman, 2020). Despite a few noteworthy investigations, there is a scarcity of research on the significance of crisis management preparedness, particularly in the cultural context of the Arab world. This underscores the necessity for more research to be conducted on crisis management and its interdependent relationship with social capital.

The existing body of knowledge on crisis management has a deficiency in terms of incorporating theory-based research. Although, there is limited research on crisis management in UAE organizations, and most of the crises in these organizations are handled by hiring international consultants. Therefore, it is important to understand how UAE organizations should respond to crises and to mitigate the risks of organizational closure. It's important to have a crisis management plan. Therefore, there is a pressing need to enhance this literature by integrating pertinent theoretical explanations.

## 2.8 Research Framework and Hypotheses Development

After an extensive literature review, a research framework has been developed as mentioned above. The linkages shown in the framework in figure 3.1 are found in the literature.

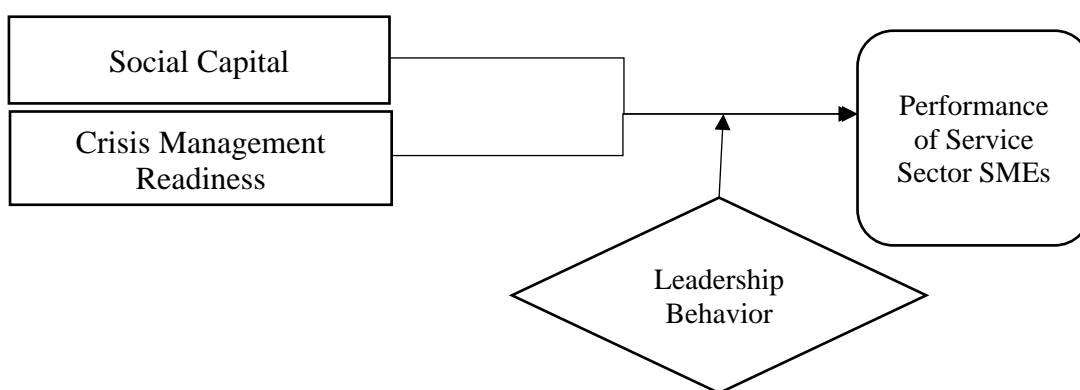


Figure 2.1 Theoretical Framework

Figure 2.1 illustrates a framework that proposes how the integration of Resource-Based Theory and Contingency Theory can enhance the analysis of performance of service sector SMEs. Resource-based theory offers a solid foundation for analyzing organization performance by leveraging the organization's valuable, rare, inimitable,

and non-substitutable resources to enhance customer value which are social capital and crisis management readiness. In contrast, contingency theory highlights the importance of adapting to leadership behavior and exploiting potential opportunities even in a crisis.

Thus, the framework has been developed by integrating the two theories that is why it is termed as theoretical framework. Hence the framework is a contribution to the body of knowledge as it integrates these theories, organizations can reconfigure their resources and adapt to changing circumstances, leading to improved performance (Ramon-Jeronimo, Florez-Lopez, & Araujo-Pinzon, 2019). Asad et al. (2018) have tested the resource-based theory. It suggests that resources have their limitations.

Asad, Chethiyar, and Ali (2020) suggested that developing a resource-based viewpoint is crucial for organizations in a post-crisis period. They emphasized that contingency theory views organizations as open systems, and that there is no one-size-fits-all approach to running a business, regardless of leadership behavior and mindset (Carmeli & Schaubroeck, 2008). Therefore, the main novelty of the research is extension of the prior studies which suggest enriching RBV by adding the contingency situations which COVID-19 has created and in the current framework leadership behavior has been added in RBV with the help of contingency theory.

The effectiveness of crisis management alone may not be enough to fully understand how organizations strive to achieve their performance. External factors such as knowledge and information also play a critical role in shaping organization performance. As an open and dynamic organizational structure, organizations need to



balance their internal needs with external factors to achieve optimal performance. Therefore, the proposed research framework incorporates leadership behavior as a moderating variable in this process (Asad, et al., 2021; Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022).

In the face of an impending crisis, emerging organizations must possess the ability to navigate a transforming system amidst uncertain conditions. The impact of highly competent leadership behavior on organization performance is crucial, but it may yield diverse results for small and medium-sized enterprises. The contingency model of organization emphasizes that the response of leadership to external opportunities is associated with devious perceptions. Therefore, organizations must allocate their resources with caution to achieve higher performance. The proposed research framework considers leadership behavior as a moderating variable, as crisis management alone is insufficient to elucidate the efforts of an organization to achieve its desired performance. External information and knowledge also help to achieve the anticipated performance (Lee & Hallak, 2020; Alharthi & Khalifa, 2019). Hence the following hypothesis is proposed:

H<sub>1</sub>: Crisis management readiness has a significant influence over the performance of service sector SMEs in UAE.

In recent times, social capital has gained significant attention as a key factor in predicting social relationships and evaluating business agreements. The strength of an organization's social capital has been linked to its performance, highlighting the importance of social networks and relationships in achieving organizational success (Guerrero, Cayrat, & Cossette, 2022) on account of organization contentment. Social

capital can play a vital role in organization performance (Menike, 2020). Investing in social capital can have a significant impact on an organization's success in the market, as it can contribute to knowledge acquisition and overall organization performance (Newman, Schwarz, & Borgia, 2014).

To evaluate their social capital, organizations may employ strategies such as safeguarding confidential information to maintain competitive advantage to improve resources. Exclusive information can increase profitability and reduce inner ambiguity, making it an asset. Social capital is seen to address high transactions and management costs arising from miscommunication and misinformation (Clopton, 2011).

It is necessary for networks, norms, and confidence to exist (Satar, Alharthi, Asad, Alenazy, & Asif, 2024). Consequently, it is expected that social capital will be able to shape organizational culture (Khaliq, Rehman, Roomi, Rehman, & Irem, 2014) to achieve the goals of organization performance. Organizations having greater social capital may pay for maintaining networking for other companies that are thought to be losing money (Asad & Sharif, 2016). Companies with a high degree of social capital may pay for maintaining networking for other companies that are thought to be losing money.

Therefore, the unfavorable correlation between the strengthening of solid relationships and the growth of an organization is noted by (Pirolo & Presutti, 2019). The impact of social capital on organization performance is complex and multifaceted. Social capital can serve as a crucial factor in enhancing an organization's performance, particularly

through the expansion of social networks and channels for supply management. However, the exact mechanisms by which social capital affects organization performance are still subject to ongoing research and debate (Chen, Liu, Wei, & Gu, 2018). Jansen et al. (2011) suggest that in small and medium-sized businesses, higher levels of connectivity can lead to congestion and decrease decision-making efficiency. Therefore, the researchers propose a second hypothesis about the impact of social capital over organization performance.

H<sub>2</sub>: Social capital has a significant influence over the performance of service sector SMEs in UAE.

### **2.8.1 Leadership Behavior as a Moderator**

Leadership behavior is a widely studied concept in management literature, as it has a significant impact on performance. It is viewed as a process that modifies the effect of autonomous variables on organization performance, in the context of contingency theory. Leadership behavior can be considered as an exogenous variable with moderating effects (Purwati, Budiyanto, Suhermin, & Hamzah, 2021; Asif, Asad, Bhutta, & Khan, 2021; Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022) while other authors considered it as independent variable (Almansour, Asad, & Shahzad, 2016; Alharthi & Khalifa, 2019; Asad, Asif, Bakar, & Sheikh, 2021). However, considering the inconsistencies in the literature over the relationship between social capital and performance as well as crisis management readiness and performance, by following Asad, et al. (2021), leadership has been introduced in the RBV as a moderator.

The impact of leadership behavior on performance of service sector SMEs is widely recognized in management literature. In the context of contingency theory, leadership behavior is a process that alters the impact of independent variables on performance of service sector SMEs. It can act as an exogenous variable with moderating effects that are comprehensive and versatile. As highlighted in Asad et al.'s (2021) study, leadership behaviors that influence followers' standards and aspirations, prompt their superiors' directive necessities, and can be seen as contextual factors that enhance or constrain the performance impact of leadership behavior and organization performance (Liu Y., 2013).

Moreover, if the senior management encourages a culture of high potential, it is imperative for all departments and groups to embrace social capital and collaborate to capitalize on the opportunities presented (Allam Z. , Asad, Ali, & Malik, 2022). This partnership demonstrates how to increase customer communication and activity planning (Amir & Asad, 2018; Damer, Al-Znaimat, Asad, & Almansour, 2021) which are crucial given that in the current digital age, leadership behavior is an organization-wide creation whose levelled and slight changes desires contributions from all functional groups (Asad, Ahmad, Haider, & Salman, 2018).

Recently, studies on leadership behavior development have revealed the significance of social capital in small and medium-sized enterprises (SMEs), but its full significance remains unclear (Haq, Asad, Natarajan, Sankar, & Asif, 2021). Aligned with the human resources approach, the most recent approach that emphasizes relational and social capital acknowledges that leadership behavior is an ongoing, relational, and socially embedded process that involves all members of management,

regardless of their formal leadership roles (Asad, Asif, Allam, & Sheikh, 2021; Asad, Asif, Bakar, & Sheikh, 2021). Therefore, emphasis is placed on building and utilizing relationships that are supported by social awareness (such as empathy and political awareness) and social skills (such as collaboration, networking, team management, and conflict resolution).

Thus, this perspective acknowledges that effective leadership performance during times of crisis relies not only on the leader's individual abilities, but also on their ability to interact with social contexts (Alharthi & Khalifa, 2019; Victor, ul Haq, Sankar, Akram, & Asad, 2021). Therefore, leadership behavior oriented towards social capital is adaptable to various social and environmental contexts and involves facilitating people to learn from their work, rather than removing them from it to learn. The latest developments in leadership behavior are taking place alongside ongoing work proposals that are aligned with strategic business objectives.

In 2018, Tasavori, Zaefarian, and Eng conducted research on cross-cultural competencies in organizational leadership. They identified four specific behavioral competencies that effective leaders must possess: organizational literacy to appreciate the organization's value, social literacy to draw and evaluate others, business literacy to concentrate and structure the organization, and cultural literacy to capitalize on cultural differences (Bashir & Asad, 2018). For instance, by understanding the value of the organization, a leader can effectively communicate and negotiate with others, which enables team members to focus and rally around the organization's objectives and leverage culture as a tool for creating competitive advantages (Asad, Fryan, & Shomo, 2025). Therefore, leadership behavior enables an organization to choose

between a strategy driven by opportunities or a strategy driven by available resources (Amjed & Tirmzi, 2016). Therefore, the hypotheses are:

H<sub>3</sub>: Leadership behavior moderates the relationship between social capital and performance of service sector SMEs in UAE.

H<sub>4</sub>: Leadership behavior moderates the relationship between crisis management readiness and performance of service sector SMEs in UAE.

## **2.9 Chapter Summary**

This chapter explains the definitions, conceptualizations, and dimensions of the key variables in the study, drawing on previous research. Prior research reviews factors affecting SMEs performance. Past studies that examine the influence of social capital, crisis management readiness, leadership behavior, and performance of service sector SMEs are discussed. The chapter also outlines the theoretical foundation for the study, which is based on Resource-Based View (RBV) and contingency theory. The relationship between these theories and the study's theoretical framework is established, to address the research questions. The following chapter further discusses the methodology and measurement techniques employed in the current study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter centers on the conceptual framework, hypothesis development, operationalization of variables, and sources of survey items for the study. The research design to be utilized to conduct the research is also discussed, including the philosophical framework within which data was collected and analyzed. Furthermore, this chapter outlines the population and sample of the study, the data collection instrument and strategy, and the procedures for data analysis.

#### **3.2 Research Design**

To quantify the relationships among the variables of performance of service sector SMEs, social capital, crisis management readiness, and leadership behavior, the present study employs a cross-sectional design using a quantitative method. The hypotheses were formulated based on a thorough review of the literature and were tested using a questionnaire administered through a cross-sectional survey. The study utilizes various data collection and analysis methods and techniques, such as the unit of analysis, sampling technique, and location, which are explained in detail in this chapter. Random sampling was employed to ensure that the sample is representative of the observed population. To simplify the process from the sample to the population,

a random selection procedure was utilized to ensure that the sample is a true representation of the population being studied.

Considering the study's research questions and objectives, a survey method utilizing a questionnaire as the primary data collection instrument was deemed appropriate. Using a quantitative method with a cross-sectional design is suitable for the study because it aims to quantify the relationships among the variables under observation, which are performance of service sector SMEs, social capital, crisis management readiness, and leadership behavior. This approach involves collecting data from owner-managers of SMEs in UAE through a questionnaire, which is a reliable and efficient method of data collection.

The use of a cross-sectional design allows for the collection of data at a single point in time, making it practical and cost-effective for the study's scope. The selection of this approach is also based on the need to determine the moderating role of leadership behavior in the relationship between the variables. Accordingly, the study relies on quantitative data to describe the attributes of the SMEs and to test the stated hypotheses. Hence, the data was collected at a single point in time, making it a cross-sectional study.

### **3.3 Unit of Analysis**

For empirical research, the unit of analysis is crucial in determining the level of aggregation and who or what is responsible for providing the data (Quinlan, Zikmund, Babin, Carr, & Griffin, 2018). The focus of this study is on the organizations themselves, specifically small and medium enterprises (SMEs). The rationale for



selecting SMEs as the target population is that they experienced a significant decline during the COVID-19 crisis. Therefore, the owners and managers of these SMEs were the respondents providing data on behalf of their respective organizations.

### **3.4 Population and Sample**

The focus of this research is the service sector of small and medium-sized enterprises (SMEs) operating in UAE, as they play a significant role in employment, GDP, and overall business establishments in the country. The total population under observation comprises of SMEs in UAE, which is estimated to be 151,875. Among them, the services sector SMEs account for 35% of the total SMEs (Government of Dubai, 2019) which totals like 53156 which forms the population for this research. Because of the maximum share in the SME sector and because of major decline in the service sector SMEs, Service sector SMEs were investigated as they also have a significant contribution in the economy as compared to manufacturing and trading SMEs (Fadhel, Aljalahma, Almuhanadi, Asad, & Sheikh, 2022).

Therefore, due to the large number of SMEs in the UAE, it is not feasible to conduct a survey on the entire population. Hence, it is crucial to make sure that the selected sample is a close representation of the overall population. To achieve this, a random selection approach has been employed to ensure that the sample is truly representative of the observed population. Specifically, the study aims to target service sector SMEs, as they make up the largest proportion of the economy compared to manufacturing and trading and are therefore a key focus for local governments to promote entrepreneurship plans. The respondents of the study were the managers and owners

of service sector SMEs because they are the right person to respond about the situation under analysis.

### **3.5 Sampling**

For sampling, the primary thing is the determination of the population. After identifying the population, it becomes easier to identify the suitable sample size, and finally the sampling technique. Consequently, in this section initially, the population was identified, and then the sample size was proposed. After determining the sample size, sampling techniques have been mentioned which are simple random sampling, and data collection methods that were followed, have been mentioned.

#### **3.5.1 Sample Size**

The 151875 organizations in Emirates that make up the group of this study were randomly selected for this study. A list of demographic fundamentals is the sampling frame. It alludes to the small and medium business database that the UAE government has released (Telecommunications and Digital Government Regulatory Authority, 2022). Zikmund, Babin, Carr, and Griffin (2013) emphasized two options for selecting samples using the random sampling method, particularly when the characteristic of this sampling method is centered on an equal and independent opportunity for inclusion in the sample.

A substantial sample size was selected to ensure that the population was adequately represented. When selecting a sampling technique to determine the appropriate sample size, several factors were considered, such as the heterogeneity of the sample, the number of variables used in the study, and the intended statistical tool for analyzing

the data. Specifically, to utilize Structural Equation Modeling (SEM) for data analysis, a minimum sample size of 100 is recommended (Lei & Lomax, 2005). However, to determine the appropriate sample size, the well-known formula provided by Mendenhall, Reinmuth, and Beaver (1993) was utilized. The formula is outlined below.

$$n = \frac{NZ^2_{\alpha/2} pq}{(N - 1)e^2 + Z^2_{\alpha/2} pq}$$

In the above-mentioned formula, ‘n’ shows the size of the sample. Similarly, N’ shows the size of population which is 151875.  $Z^2_{\alpha/2}$  represents the critical value for the two-tailed Z test at 95% confidence interval which is  $(1.96)^2$  or 3.8416, ‘p’ ‘q’ is the proportion of sample variance (assuming maximum variance, p=0.5, and q=0.5). Finally, e’ represents chances of error (0.05) at a 95% confidence interval.

$$n = \frac{15000Z^2_{\alpha/2} pq}{(15000 - 1)e^2 + Z^2_{\alpha/2} pq}$$

$$n = \frac{15000(3.8416) (0.5)(0.5)}{(15000 - 1)(.0025) + (3.8416) (0.5)(0.5)}$$

$$n = \frac{14406}{37.4947 + 0.9604}$$

$$n = \frac{14406}{38.4579}$$

$$n = 374.59$$

The calculated value is 375. This size of sample is quite appropriate, as this study used PLS for the purpose of analysis. For PLS even a sample size between 250 and 500 is considered as appropriate (Lei & Lomax, 2005).

### **3.5.2 Sampling Technique**

The list of SMEs was obtained from the government UAE (Telecommunications and Digital Government Regulatory Authority, 2022). For the sampling technique that has been applied in the study to choose the respondents, simple random sampling was used. Sample selection was made on a random sampling basis. The basic reason behind choosing simple random sampling is that it is the most appropriate technique, and results can be generalized when the data is collected through simple random sampling. Mostly, studies over SMEs have used simple random sampling (Jabeen, 2014; Haider, Asad, & Fatima, 2017; Haider S. H., Asad, Fatima, & Atiq, 2017; Arshad, 2018; Asad, Asif, Bakar, & Sheikh, 2021).

The major reason for choosing simple random sampling is that in simple random sampling participants have an equal and fair chance of being selected out of the entire population. Secondly, simple random sampling provides randomized results from the entire population. Moreover, simple random sampling cheap, quick, and easy to carry out (Zikmund, Babin, Carr, & Griffin, 2013). By using the list of SMEs provided by the government, i.e., sampling frame, 800 questionnaires were distributed in UAE in an anticipation of a less than 50% response rate. Finally, a 46.875% effective response rate was achieved.

### **3.6 Measurement of Variables**

Operationalization refers to the process of defining and measuring the variables in a study. In this context, it involves defining and measuring the observed variables, with performance of service sector SMEs being the dependent variable, and other variables such as social capital, crisis management readiness, and leadership behavior being

considered as independent variables. Two primary goals were kept in mind while designing the questionnaires for this research: maximizing the response rate and obtaining accurate and precise information from respondents.

Questionnaires were developed for this research based on some significant constructions from prior literature, and four latent variables were identified, with each variable corresponding to important references. Organization performance has been adopted from (Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022). Social capital refers to (Jansen, Curşeu, Vermeulen, Geurts, & Gibcus, 2011), crisis management readiness refers to (Carmeli & Schaubroeck, 2008) whereas leadership behavior from (Asif, Asad, Bhutta, & Khan, 2021).

This research employs a standardized set of questionnaires, which are expected to be utilized repeatedly for comparison and contrast. It should be noted that the research prefers to use a unipolar five-point scale for some reason. Firstly, it is easy to understand and use, which reduces the likelihood of respondents making errors when completing the questionnaire. Secondly, it is less likely to produce neutral responses, which can lead to more informative data. Lastly, it is a widely used scale in social science research, which allows for the comparison of results across studies. However, it is important to note that the use of a unipolar five-point scale may limit the range of responses and may not capture the full extent of the participants' attitudes or beliefs. The dichotomous responses are then calculated based on the answers provided by the respondents. Secondly, 5-scale is more reliable as (Asad & Abid, 2018) emphasized that using 5-point scales in studies is justifiable, as the reliability increases with the increase in the number of categories.

### **3.6.1 Measurement of Performance of Service Sector SMEs**

The current study formulated questions based on previous empirical research (Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022). The performance of the organization was measured in terms of sales, revenue, and profits. The proposed model employed several measures to determine the level of performance of service sector SMEs in the past three years. The response format for this scale was a 5-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). High scores on this scale indicate high performance, while low scores indicate poor performance.

This research employed questionnaires to assess performance of service sector SMEs, utilizing a subjective approach, with SMEs as the unit of study (Asad, Chethiyar, & Ali, 2020). The researcher implemented subjective measures to address the challenge of inadequate or unreliable financial records, as well as the risk of disclosing confidential financial information from SMEs (Asad, et al., 2024). In many cases, accounting reports of SMEs are only required for the purpose of preparing business tax returns, and it is not necessarily an indication of the accounting staff's competency. Therefore, financial reporting may not be related to the staff's ability to manage taxes and financial control. To calculate financial performance, productivity measures such as sales growth, sales income, average return on sales, and percentage of sales goals achieved are utilized. These measures can be used to evaluate performance of service sector SMEs over multiple years, and thus the subjective measures also consider performance over a period. The study considers that measures are based on performance over the last year as cross-sectional data is used and the study is also cross-sectional. Some organizations may experience a time lag between their interventions and their impact on performance of service sector SMEs. It is suggested

that a one-year time frame be used to analyze the effects of interventions rather than a three-year time frame.

The instrument that has been used for the dependent variable is adopted from Asad, Chethiyar, and Ali (2020). The same instrument has been adopted by several other studies (Ali, Hilman, & Gorondutse, 2020; Asif, Asad, Kashif, & Haq, 2021; Asad, Asif, Bakar, & Altaf, 2021). Performance of SMEs is always challenging because SMEs are renowned for their informal record keeping. Therefore, it is difficult to trust the accounting records, therefore, performance of SMEs is usually measured through questionnaires and perception of the owners and managers is taken to measure the overall performance of SMEs which covers both financial and non-financial dimensions. The dependent variable in this study was measured using a 5-point Likert scale, with responses ranging from "strongly agree" to "strongly disagree" and coded from 1 to 5. The variable comprised of nine items, which covered various areas of performance for small and medium-sized enterprises (SMEs). These areas included sales growth, employee growth, profits growth, return on assets, and return on investment. Perceptual measures were chosen for assessing SMEs' performance due to the informality of such businesses in developing countries and the lack of proper record-keeping. Even if records are maintained, they may not be reliable, making it difficult to obtain accurate data on SMEs' performance.

### **3.6.2 Measures of Social Capital**

The current study focuses on three components of social capital, namely structure, trust, and cognitive. The measures for social capital with these three dimensions were adapted from earlier research (Khaliq, Rehman, Roomi, Rehman, & Irem, 2014). Some

studies have focused on a single dimension of social capital, such as Clopton (2011), while others have emphasized multiple aspects of social capital. Researchers who use a single dimension approach typically randomize the objects of measure and conduct a factor analysis to draw distinctions among the items. This enables a reliable assessment of the relational dimension of social capital in each context. Social capital is considered a resource that includes relationships and affiliations with stakeholders, encompassing trust, structure, and cognitive dimensions. The value of network ties provides privileged access to information and opportunities, which facilitates symbiotic collaboration in a context characterized by a high level of mutual trust (Jansen, Curşeu, Vermeulen, Geurts, & Gibcus, 2011).

### **3.6.3 Measurement of Crisis Management Readiness**

In this study, the concept of crisis readiness is operationalized as the ability of an organization to effectively manage and cope with both current and future crisis situations. The researchers have used a set of measures adapted from previous research to assess this construct. Crisis readiness is considered a critical factor for SMEs' performance during times of economic disruption, such as recessions. The measures used to assess crisis readiness are designed to capture the organization's capacity to prepare for, respond to, and recover from unexpected events. This includes the organization's ability to identify potential threats, develop contingency plans, communicate effectively, and mobilize resources quickly and efficiently during a crisis.

By using crisis readiness as a proxy for measuring performance of service sector SMEs during periods of economic disruption, the researchers can assess how well SMEs are



positioned to weather unexpected challenges and maintain their operations during a crisis. This is particularly important for SMEs, as they are often more vulnerable to economic disruptions than larger organizations due to their limited resources and capabilities. Overall, crisis readiness is a crucial factor for SMEs' success in turbulent times, and this study's operationalization of this construct provides a valuable tool for assessing and improving SMEs' resilience to economic shocks. The crises readiness measure employed in this research was adopted from Carmeli and Schaubroeck (2008) and Liu-Lastres and Cahyanto (2023). Based on a thorough study of the crisis management literature, the researchers adopted the measure. There were 15 reflective elements in total on the Carmeli and Schaubroeck (2008) scale. However, the initial scale was used because it was appropriate for the situation and fulfilling our goal.

#### **3.6.4 Measures of Leadership Behavior**

To assess leadership behavior, a questionnaire consisting of 19 items was used to measure six dimensions of Leadership Behavior, including planning, coordinating, leading, motivating, communicating, and collaborating across cultures and countries. Forum associate assisted in improving organization performance by implementing approaches and solving problems. Participants were asked to rate their strengths in 14 behaviors and provide suggestions on management usefulness in their environment. The questionnaire was administered to 800 participants, and the results indicated high reliability and validity of the instrument. Based on the dimensions proposed by Asif, Asad, Bhutta, and Khan (2021), the questions for this study were developed to measure an organization's performance with leadership behavior, specifically in communicating and collaborating across cultures and countries, and they measured the

variable as a uni-dimensional variable. The questionnaire used in this study consisted of 19 question items, each of which was measured using a 5-point Likert scale.

The study examined leadership behavior using a questionnaire consisting of 20 items that assessed six dimensions: planning, coordinating, leading, motivating, communicating, and collaborating across different cultures and countries. The questionnaire was administered to 800 participants, were asked to rate their level of agreement on the 14 leadership behavior items using a Likert scale. Additionally, they were asked to provide their suggestions on the management usefulness of each item. The researchers developed the items based on the dimensions proposed by Asif, Asad, Bhutta, and Khan (2021) to measure the organization's performance with leadership behavior. Asif, Asad, Bhutta, and Khan (2021) used the instrument in the settings of a developing country and used it as a single dimension considering the understanding level of the respondents, therefore, the instrument is used as a uni-dimensional variable. In this study, the concept of leadership behavior was used as a moderator, which entails the process of discussing information, data, and experience across national business boundaries, while simultaneously managing competing priorities that may arise during the process (Alharthi & Khalifa, 2019; Bowers, Hall, & Srinivasan, 2017; Liu Y. , 2013).

### **3.7 Validity and Reliability**

#### **3.7.1 Validity test**

To obtain accurate results, it is important to ensure that the measures used in a study are valid. One of the most common methods of assessing validity is by testing the clarity and comprehensibility of the questionnaires or surveys used to collect data (Hair, Sarstedt, Ringle, & Mena, 2012). Validating methods involve evaluating the

content of the measures, the clarity of expression, fairness and equity, pedagogy, and the applicability of the system. By conducting a validity test, researchers can ensure that their measures are valid and can be used to obtain reliable results. This ensures that the findings of the study are accurate and can be used to inform decision-making and policy development.

To ensure that the dimension properties of upgraded questionnaires from other languages and cultures stay consistent with the original ones, content strength for the local culture is required (Hair, Black, Babin, & Anderson, 2010). In this research the author has translated the questionnaires into Arabic. Afterwards the questionnaire was sent to language experts in UAE to confirm that the intended meaning has not been changed. However, there is a risk of using a questionnaire across different cultures, which can result in different meanings and interpretations. To ensure that the questionnaires meet the validity criteria, the study employs two types of validity tests: construct validity and content validity. This is done to ensure that the questionnaire accurately measures the constructs it intends to measure and that the content of the questionnaire is appropriate for the local culture.

Construct validation is the process of evaluating the validity of a test or measure by assessing its ability to accurately measure the underlying construct or concept it claims to measure. It has emerged as a crucial aspect of scientific research, particularly in cases where there are no established criteria to evaluate a particular construct. By assessing the construct validity of a test, researchers can ensure that the test is measuring what it claims to measure and that the results obtained from the test are

reliable and accurate. This can help to strengthen the overall validity and reliability of the research findings (Joseph F. Hair, Black, Babin, & Anderson, 2010).

Constructs must be adapted to specific cultural contexts to achieve accuracy in measurement. According to Sekaran and Bougie (2016), translating questionnaires from one language to another can have an impact on the development of questionnaires for use across cultures. Quinlan, Zikmund, Babin, Carr, and Griffin (2018) proposed a procedure for phrasing questions that aims to follow certain guidelines. Firstly, the context needs to be properly set for a question, focusing on a single issue, and avoiding questions that may have double meanings. Secondly, it is crucial that all respondents interpret the questions in the same way to ensure consistency in their responses. Thirdly, trade jargon should be avoided. Therefore, this research has adapted questionnaires with simple grammatical sentences to ensure clarity. Additionally, the wordings of questions have been tailored to match the local social norm. It is important to consider apparent social standards as they can significantly impact the willingness of respondents to self-report on unwanted behavior.

In addition, it is important for the instrument to establish content validity to confirm that the measures taken are appropriate and accurately reflect the concept that is being measured (Harrison, Henderson, Alderdice, & Quigley, 2019). To establish the content validity of the questionnaire, a panel of experts, including academic scholars and industry professionals in the relevant field, were consulted for their feedback. Additionally, exploratory factor analysis was utilized to assess construct validity, identifying the underlying dimensions of each construct relevant to the study. To ensure the reliability of the latent constructs, Cronbach's alpha was employed.

### **3.7.2 Reliability test**

Reliability testing is a crucial step in any research study to ensure that the proposed measures are consistent and dependable. The primary goal of reliability testing is to assess the level of consistency of the measures across different situations or conditions. A reliable measure is one that produces the same or similar results when applied repeatedly under similar circumstances.

In simple terms, reliability refers to the degree to which a measure consistently produces the same results over time, across different observers, and in varying contexts. Reliability is a statistical concept that involves the ratio of the true variation to the total variation of the measurement, which excludes the variation due to random measurement error. A high level of reliability in the measurement indicates that the observed results are more likely to be accurate and valid. Therefore, it is essential to ensure that the measures used in research studies are reliable, as unreliable measures can lead to biased or inaccurate results. By assessing the reliability of measures, researchers can improve the quality and validity of their research findings and conclusions. This definition is provided by Hair, Ringle, and Sarstedt (2013). Therefore, to ensure reliability and validity of the instrument used and the constructs used in the study, Cronbach's Alpha, composite reliability, and Average variance extracted are used. Furthermore, discriminant validity has been analyzed by using two methods.

Another important similarity between these two measurements is that both range from 0 to 1, and a value greater than 0.6 is an acceptable level of consistency or reliability. This is because the similarity level of the measurement refers to the proportion of the

true variance to the total variance of the measurement (Zikmund, Babin, Carr, & Griffin, 2013). Cronbach's alpha is the most used method for testing reliability compared to other methods such as CR and AVE. Cronbach's alpha value of 0.7 or higher is considered acceptable for research purposes, while a value of 0.8 or higher is considered good. However, the acceptable value may vary depending on the research context and the number of items in the scale. It is also important to note that Cronbach's alpha should not be the only criterion used to evaluate the reliability of a measure, and other measures of reliability, such as test-retest reliability and inter-rater reliability, should be considered as well.

Hair, Black, Babin, and Anderson (2010) proposed that Cronbach's alpha may overestimate or underestimate reliability, particularly in multi-dimensional tests. As a solution, composite reliability (CR) was developed to address multi-dimensional data. When the Average Variance Extracted (AVE) value of a construct is less than 0.5, it indicates that the discrepancy in measurement error is greater than the variance of the construct, which suggests low validity. Therefore, such a construct's convergent validity may be questionable.

### **3.8 Data Collection Procedure**

The process of selecting a sample from the total observed data involves choosing a random number from a table of random numbers generated by a computer program. The number allotted to an organization corresponds to its position in the population, and if it is selected to be part of the sample, it is assigned a number.

The study uses a self-administered model, as it is believed that this method increases the likelihood of participants providing truthful responses due to the absence of a human interviewer (Zikmund, Babin, Carr, & Griffin, 2013). This means that the questionnaires were distributed to randomly selected samples, and after a week, the researcher retrieved the questionnaires. To address the high likelihood of a low response rate and the inability to control the response rate, this study employed a proactive approach with the respondents.

During this step, the surveyor called the respondents to ensure that the questionnaire was delivered to the right person and that they understood all the questions. The questionnaire was distributed using WhatsApp numbers of the SMEs owners and managers. The research aimed for voluntary participation and did not provide any incentives for completing the questionnaire. However, research by Gómez et al. (2016) suggests that pre-incentives can improve response and retention rates if not contingent on completion. On the other hand, rewards given after completion had no impact on response rates but did improve retention rates.

Sekaran and Bougie (2016) found that offering rewards to previously non-participating individuals significantly increased response rates and led to longer discussions and more items completed. In addition to this, providing financial incentives to participants who were initially willing to participate in the study showed variable effects on response rates, interview duration, and the number of completed items. Additionally, while collecting the data, the only issue faced was the reluctant behavior of the respondents as they were afraid of their information to be revealed. The researcher gave them surety that their names and information provided will not be revealed and

the information will only be used for the purpose of research, they agreed and participated in the study willingly.

### **3.9 Techniques of Data Analysis**

PLS-SEM is a statistical technique that allows for the estimation of complex relationships among multiple variables. It is particularly useful in cases where the relationships among variables are not well understood or are non-linear. PLS-SEM is a two-step approach, where in the first step, the measurement model is established by assessing the validity and reliability of the measurement items used to operationalize the latent variables. In the second step, the structural model is established by examining the relationships among the latent variables. PLS-SEM is particularly suited for small sample sizes and complex models, making it a useful tool for researchers studying SMEs (Bryman & Bell, 2015). To ensure that the methodology adheres to the mentioned assumptions, this study makes the following assumptions.

#### **3.9.1 Non-Response Bias**

For the assessment of the performance, it is crucial to predict if non-response error introduces any bias into the estimation of the model. When individuals who are important for the survey do not participate or cannot be reached by the survey, it leads to non-response, which means that relevant survey data cannot be obtained. However, non-response bias is not only associated with the inability to reach the sampling frame; it also includes the inability to gather survey data from a selected unit (Bryman & Bell, 2015). It is generally recommended to evaluate the potential for non-response bias when the response rate falls below 50%, according to standard guidelines. Nonetheless, a higher response rate does not necessarily guarantee a lower risk of



response bias error (Hair, Ringle, & Sarstedt, 2013). Non-response bias happens when there are discrepancies in responses between respondents and non-respondents, which can be expressed as a formulation.

Assessing the risk of non-response bias is crucial at various stages, including before, during, and after data collection. To lessen the likelihood of non-response error and increase the response rate, it is advisable to conduct pretests prior to data collection. According to Floyd (2013), researchers can examine the non-response patterns from comparable surveys. For instance, Floyd (2013) reported that surveys targeting top executives usually have lower response rates compared to those targeting consumers or managers. Hence, when targeting high-level executives for surveys, researchers should consider the survey's relevance to this group and offer incentives to unemployed respondents to increase their participation rates.

Furthermore, Sekaran and Bougie (2016) emphasized that sociocultural factors, such as gender and ethnicity, also play a role in determining response rates. As a result, it is essential to conduct pretests to verify that the survey is designed appropriately to reach the intended respondents. When collecting data, the survey should strive to achieve a proportional representation of all sample groups, with varying degrees of accessibility. Additionally, the survey should prioritize flexibility for respondents to answer questionnaires and ensure adherence to the principle of confidentiality.

To evaluate non-response bias, it is crucial to compare certain characteristics of all potential survey participants with the results obtained from complete questionnaires. If there is no significant difference between these values, it suggests that non-response

bias is not present. This assessment is conducted to ensure that the respondents accurately reflect the eligible population under observation (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). Three common techniques used to address non-response error and related issues, such as unbalanced selection probabilities, non-coverage error, non-response error, and sampling error due to known factors in the population, are post-stratification and propensity score weighting (Joseph F. Hair, Black, Babin, & Anderson, 2010).

### **3.9.2 Normality test**

The conventional linear regression model accepts that each variable is normally distributed. However, if the variables are not normally distributed, the t-test and F-test can still be applied in asymptotic large samples, but their reliability may be reduced in small samples.

### **3.9.3 Multicollinearity**

The absence of multicollinearity implies that none of the independent variables is a perfect linear combination of the other predictors in the model. To detect multicollinearity, VIF tolerance is commonly used.

### **3.9.4 Reliability and Validity**

In this study the reliability analysis has been conducted using items loadings initially, followed by Cronbach's Alpha, Composite Reliability, and Average Variance Extracted. Afterwards, Discriminant Validity was also established and confirmed.

### **3.9.5 Smart Partial Least Square**

In this study, the researchers utilized Partial Least Squares-Structural Equation Modeling (PLS-SEM) for numerical and statistical analysis as well as hypothesis testing. PLS-SEM is a substitute approach to traditional structural equation modeling techniques, such as covariance structure analysis. One of the advantages of PLS-SEM is its ability to estimate the limitations of the structural equation model by minimizing covariance matrices. This makes it a useful tool for researchers who are working with complex models and limited data. Additionally, the second generation of PLS-SEM estimates the relationship of partial models by maximizing the discrepancy using an iterative process of partial least squares.

Another advantage of PLS-SEM is its ability to handle non-normal data distributions, which is a common occurrence in social science research. In cases where the strong supposition of multivariate normality cannot be fully satisfied, PLS-SEM is a valuable alternative to traditional methods. (Hair, Black, Babin, & Anderson, 2010).

The reason for employing the PLS-SEM (Partial Least Squares-Structural Equation Modeling) approach is to meet the assumption of familiarity. As per Hair, Ringle, and Sarstedt (2013), PLS-SEM is suitable for handling complex and determinant actions without recognition issues. The PLS-SEM approach has gained popularity due to its several characteristics, as outlined by Henseler et al. (2014).

Firstly, the approach enables the unimpeded inclusion of structural equation representation with complex and influential dimensions. This means that it can handle models with multiple latent variables that have complex relationships. Additionally, it

allows for the incorporation of both reflective and formative measurement models, which is useful for capturing the multidimensionality of constructs. Secondly, even with a composite model, a small sample size is adequate without causing inference problems. This is a significant advantage over other methods, as sample size can be a limiting factor in traditional SEM approaches. With PLS-SEM, the researcher can work with a smaller sample size and still obtain reliable results, making it more practical for researchers working with limited resources. Finally, PLS-SEM is capable of handling highly skewed latent distributions. This means that it can handle variables that are not normally distributed, which is often the case in social science research. It does this by transforming the data into a more normal distribution through bootstrapping techniques. (Hair, Sarstedt, Ringle, & Mena, 2012).

The Smart Partial Least Square approach was used in this study to test both the measurement and structural models. The aim of the measurement model was to determine the reliability and validity of the constructs, while the structural model was used to perform bivariate correlation and regression analyses at the same time. This approach was taken to provide a comprehensive explanation of the relationships and effects among the constructs under study. Furthermore, the study utilized the PLS algorithm and bootstrapping to determine the moderating effect of leadership behavior on the relationship between social capital and performance of service sector SMEs, which was a crucial aspect of the research.

This approach allowed the researchers to examine the relationship between social capital and performance of service sector SMEs in the presence of leadership behavior as a moderating variable, and to determine whether this relationship was stronger or

weaker when leadership behavior was present. By utilizing the Smart Partial Least Square approach, the researchers were able to analyze complex data sets and explore relationships between variables that are difficult to measure. Additionally, the use of bootstrapping in conjunction with the PLS algorithm helped to improve the robustness of the findings, by generating many random samples to test the stability of the results.

### **3.10 Summary**

The study employed a simple random sampling approach, which allows for the findings to be generalized to the population of small and medium enterprises in the UAE. By using self-administered questionnaires as the primary data collection tool, the confidentiality and anonymity of the participants were maintained, thereby promoting more honest and accurate responses. The questionnaire's validity and reliability were assessed to ensure the high quality of the collected data. For this study, Smart Partial Least Square was selected as the appropriate data analysis method because it is a robust technique that can handle small sample sizes and non-normal data distributions. The combination of descriptive and inferential statistics in data analysis provided a comprehensive understanding of the research findings.

It's important to note that the simple random sampling approach used in this study had a significant advantage in terms of allowing for the findings to be generalized to the broader population of small and medium-sized enterprises in the UAE. The use of self-administered questionnaires as the primary data collection tool was also an effective strategy for ensuring the confidentiality and anonymity of the participants, which likely resulted in more truthful and precise responses. The questionnaire's validity and reliability were examined to ensure that the data collected was of high quality and

trustworthy. The decision to use Smart Partial Least Square as the data analysis method was appropriate since it can handle small sample sizes and non-normal data distributions, both of which were present in this study. The combination of descriptive and inferential statistics in data analysis provided a more holistic and complete understanding of the research findings, which adds to the study's overall credibility.

## **CHAPTER FOUR**

### **ANALYSIS AND FINDINGS**

#### **4.1 Introduction**

This section includes all the findings drawn from the data collected after applying structural equation modeling and diagnostic tests with the SPSS 25 and SMART PLS 3. This chapter's first section covers data screening and early detection. This chapter signifies the findings of studies that use information gathered from owners and managers of SMEs operating in UAE. Initially, the response rate and nonresponse bias test were applied to the data. Descriptive statistics were used for participants in the study to determine demographic factors such as gender, age, educational qualification of respondents, and designation of respondents to identify the situations that required analysis.

Additionally, the common method bias test and descriptive analysis of major variables which include analysis of missing data, analysis of normality, as well as evaluation of multicollinearity have been studied. Likewise, the outcomes of the research involved the assessment of the PLS measurement model and structural models. The measurement model involves Outer Loadings, Cronbach's Alpha, Composite Reliability, Average Variance Extracted, and Discriminant Validity (Fornell, HTMT). Lastly, the structural model which includes direct relationships, moderator effects,

moderating effects, coefficient of determination ( $R^2$ ), and evaluation of predictive relevance has been examined.

## 4.2 Response Rate

The data used for this study has been collected from the owners and managers of SMEs operating in UAE who are involved in the performance of service sector SMEs. In this study, questionnaires were personally distributed, along with a pen as a sign of gratitude. Additionally, free consultations have been offered to speed up the completion of the questionnaire's free consultation about research and the questionnaire to see if the respondent faces any ambiguity. Bougie and Sekaran, (2016) stated that reminding responders via phone calls, SMS, and in-person visits eased to increase the response rate.

Because of these efforts, 446 questionnaires have been returned out of 800 questionnaires that were personally administered to the respondents of the SMEs operating in UAE. Subsequently, this makes the response rate 55.75 %, however, out of the 446 responses obtained, only 375 questionnaires have been used for further analysis making a valid response rate of 46.875 % (Baruch, 1999). Whereas 71 questionnaires were discovered to be wrongly filled and were rejected for further analysis. As a result, the response rate is comparable with other previous studies (Narver & Slater, 1990; Baruch & Holtom, 2008). Therefore, the measured values of response rate are shown in Table 4.1.

Table 4. 1  
*Response Rate*

| <b>Responses</b>                   | <b>Frequency</b> | <b>Percentage</b> |
|------------------------------------|------------------|-------------------|
| No of questionnaires distributed   | 800              | 100%              |
| No of questionnaires not responded | 354              | 44.25%            |



| <b>Responses</b>        | <b>Frequency</b> | <b>Percentage</b> |
|-------------------------|------------------|-------------------|
| Returned questionnaires | 446              | 55.75%            |
| Excluded questionnaires | 71               | 8.875%            |
| Useable questionnaires  | 375              | 46.875%           |

### **4.3 Non-Response Rate**

In surveys, a non-response bias test is conducted when respondents' responses differ substantially between those who respond and those who do not respond. Non-response errors are referred to as when respondents are not willing to share information. For example, issues in analyzing respondents as well as also the refusal of respondents to participate in the survey could be influenced by respondents' refusal to answer. According to research by Armstrong and Overton (1977), nonresponse errors are particularly problematic when respondents' responses to their questions and the information they gave differ from those of respondents who either didn't respond or answered too late.

Additionally, the results make it impossible to determine how the entire sample responded if a nonresponse bias test is discovered. Subsequently, non-response bias may have an impact on how effective sample results are generalized to the entire population. Follow-up via WhatsApp, phone calls, SMS, and consultation have been suggested as a motivation for response to begin addressing the issue of nonresponse bias (Rogelberg & Stanton, 2007).

Furthermore, the research variables in this study have been utilized to examine possible distinctions between participants who reacted early and those who took longer to reply because response rates varied according to response time. Thus, the

respondents were split into two groups: early responders and late responders, to test for response bias. Levene's test for equivalency of variances has been employed to verify whether the variances remain valid for both early and late respondents. Moreover, based on the Levine test the two-tailed equality of mean t-test has been used to determine the precise p-value, which is linked with the hypothesis, to determine if there is a significant variance between two groups. Similarly, early responders were those who answered the questionnaire within 15 days after receiving it, whereas late respondents were those who responded more than 15 days later.

Subsequently, based on responses to the survey questionnaires which include all the essential main variables that are crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs, most of the variables have early responders 312 and late responders are 63. Therefore, the findings of Levene's test for equivalency of variances have been used to see if there was a difference in variances between early and late responders are shown in Table 4.2.

Table 4. 2  
*Non-Response Rate*

| <b>Variable</b>                    | <b>Response</b> | <b>N</b> | <b>Mean</b> | <b>SD</b> |
|------------------------------------|-----------------|----------|-------------|-----------|
| Crisis Management Readiness        | Early           | 312      | 3.34        | 0.88      |
|                                    | Late            | 63       | 3.32        | 0.90      |
| Social Capital                     | Early           | 312      | 3.64        | 0.76      |
|                                    | Late            | 63       | 3.35        | 0.82      |
| Leadership Behavior                | Early           | 312      | 3.74        | 0.87      |
|                                    | Late            | 63       | 3.97        | 0.95      |
| Performance of Service Sector SMEs | Early           | 312      | 3.87        | 0.94      |
|                                    | Late            | 63       | 3.95        | 0.87      |

Table 4.2 shows the analysis of the nonresponse rate of the respondents which were gathered after ensuring that the collected data was free of any bias and before

performing the structural analysis. The outcomes of the independent samples exhibited that the t-test indicated the similar variances do not have substantial differences as the P values for the four main variables of the study because the results were higher than the 0.05 significance level of predicted values for Levene's test equality of variance. Thus, the study confirms that the assumptions of equal variances among early and late respondents are precise.

#### **4.4 Demographics of Respondents**

This section has investigated the demographic features of the respondents. Gender, Age, Educational Qualification, and Designation of respondents among the demographics of owners and managers of SMEs operating in UAE.

##### **4.4.1 Gender of Respondents**

The study revealed gender of respondents has been analyzed from the owners and managers of SMEs operating in UAE. Therefore, the analysis of the respondents' gender is presented below in Table 4.3.

Table 4. 3  
*Gender of Respondents*

|        | <b>Frequency</b> | <b>Percentage</b> |
|--------|------------------|-------------------|
| Male   | 286              | 76.27             |
| Female | 89               | 23.73             |
| Total  | 375              | 100               |

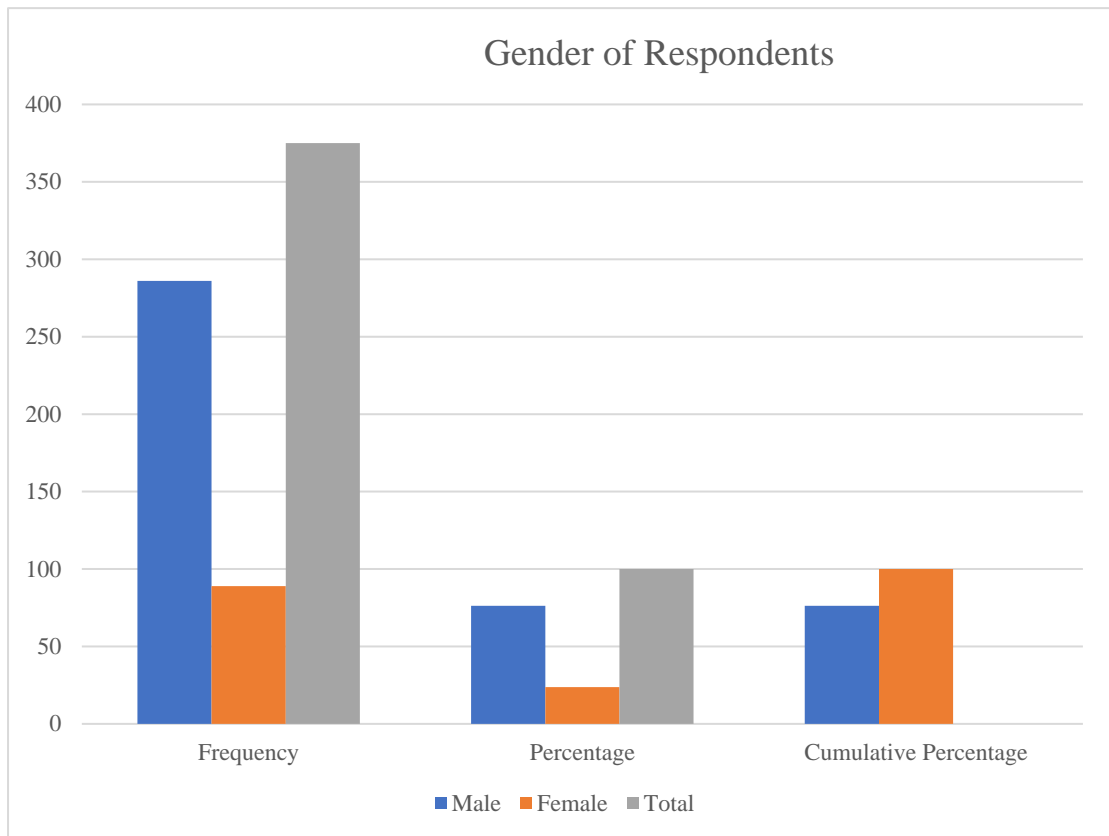


Figure 4. 1 Gender of Respondents

Table 4.3 indicates that most of the respondents are male and above the results are 286 which signifies that their percentage is 76.27, whereas the frequency of females is 89 which signifies that their percentage is 23.73. Thus, the easiest understanding of the results is shown in Figure 4.2 graph below.

#### 4.4.2 Age of Respondents

The study examined the age of respondents to ascertain from the owners and managers of SMEs operating in UAE. Thus, Table 4.4 shows the findings of respondents' age mentioned below.

Table 4. 4  
*Age of Respondents*

|              | Frequency | Percentage |
|--------------|-----------|------------|
| Below 30     | 42        | 11.20      |
| 30-40        | 51        | 13.60      |
| 41-50        | 95        | 25.33      |
| 51-60        | 102       | 27.20      |
| 61 and above | 85        | 22.66      |
| Total        | 375       | 100        |

Table 4.4 exhibits that most of the respondents are between the age groups of 51-60 and above the findings are 102 which represents that their percentage is 27.20 which is higher than other age groups. Therefore, the most essential understanding of the findings is shown in Figure 4.2 below.

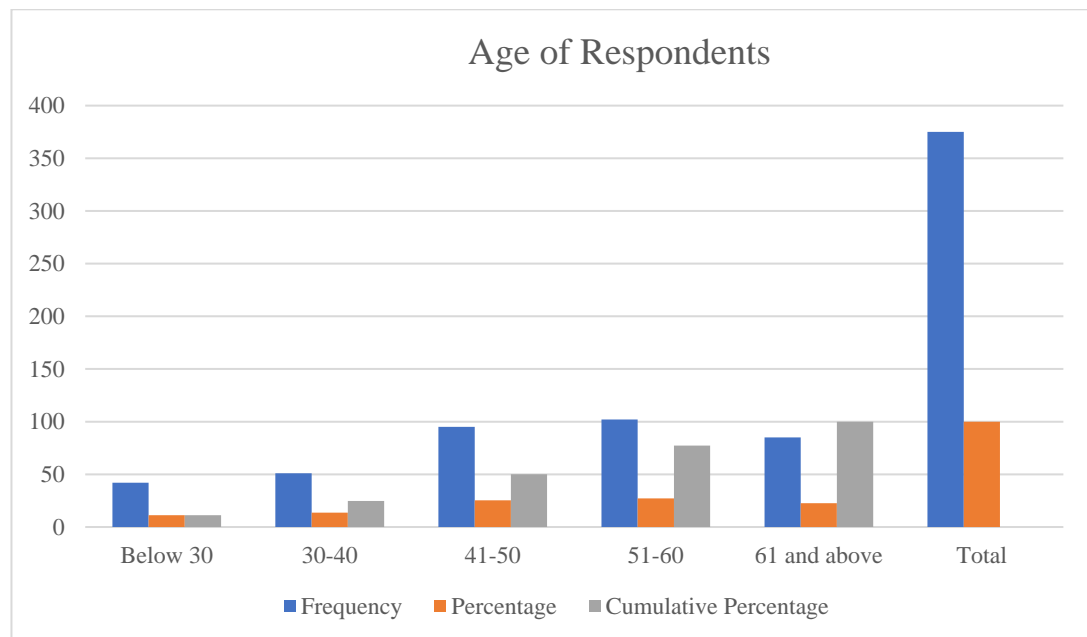


Figure 4. 2 Age of Respondents

#### 4.4.3 Educational Qualification of Respondents

The educational qualifications of respondents have been studied to better understand the demographic of the respondents from owners and managers of SMEs operating in

UAE. Hence, the findings of the educational qualification of respondents have been shown in Table 4.5.

Table 4. 5  
*Educational Qualification of Respondents*

|              | Frequency | Percentage |
|--------------|-----------|------------|
| Matric       | 77        | 20.53      |
| Intermediate | 105       | 28         |
| Bachelors    | 109       | 29.06      |
| Masters      | 84        | 22.40      |
| Total        | 375       | 100        |

The above findings of the educational qualification of respondents in Table 4.5 specify that the bachelor respondents have more persistence as compared with other respondents' educational qualifications. Thus, a simpler understanding of the results of the educational qualification of respondents are shown in Figure 4.3 below.

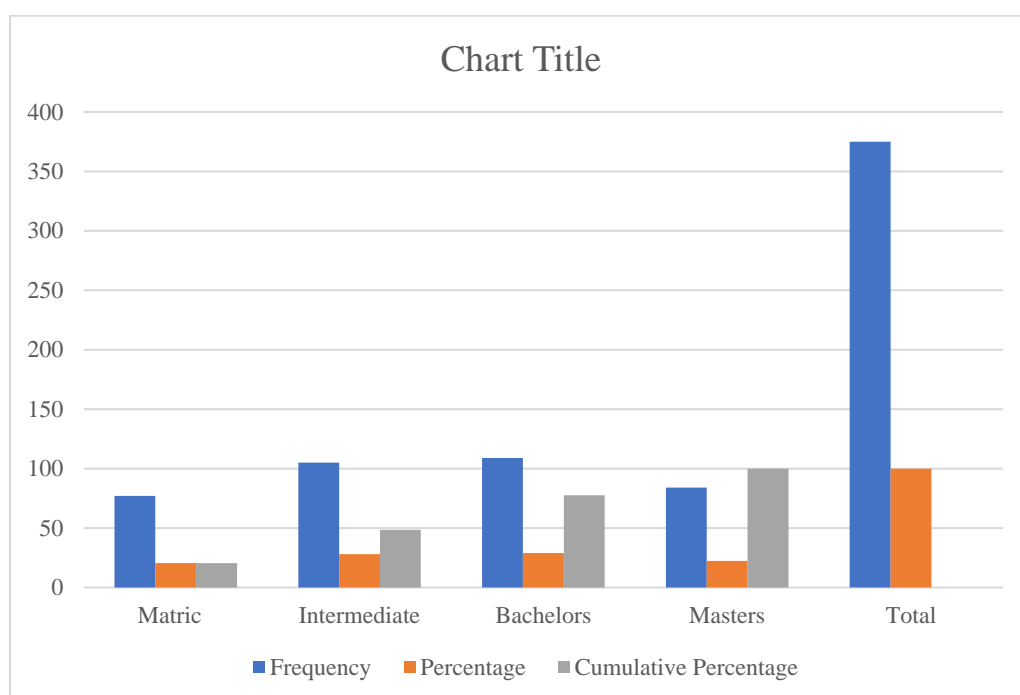


Figure 4. 3 Educational Qualification of Respondents

#### 4.4.4 Designation of Respondents

The Designation of respondents from the Owners and managers of SMEs operating in UAE has been also examined to better understand the demographic of the respondents.

The results of the designation of respondents have been indicated in Table 4.6.

Table 4. 6  
*Designation of Respondents*

|          | Frequency | Percentage |
|----------|-----------|------------|
| Owner    | 121       | 32.66      |
| Manager  | 101       | 26.93      |
| CEO      | 98        | 26.13      |
| Director | 55        | 14.66      |
| Total    | 375       | 100        |

The results of the respondent's designation in Table 4.6 reveal that the owner respondents have more persistence as compared with other respondents' designation.

For easier understanding the findings are displayed in Figure 4.4 below.

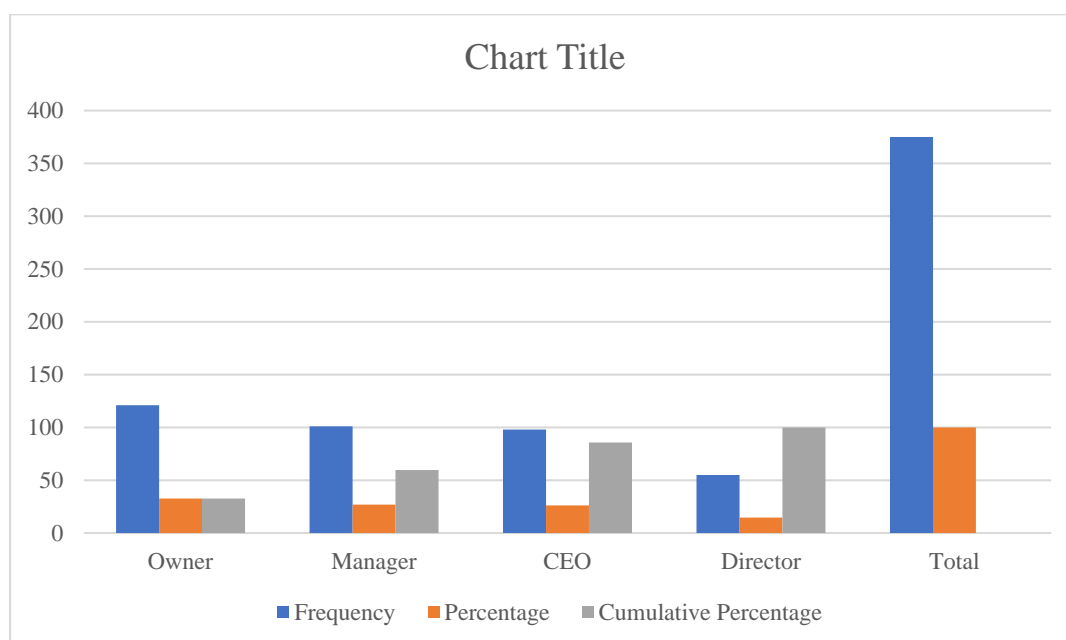


Figure 4. 4 Designation of Respondents

#### **4.5 Common Method Bias Test**

The common method bias may have an impact on the collected data on endogenous variables as well as exogenous factors that were gathered at the same time by using a similar instrument. Considering the potential issue imposed by a common method that is biased in the study behavior thus, this study conducted checking to confirm that the observed scores do not vary because the effect of the method correlations is not overstated. Common method preference, as defined by Podsakoff, MacKenzie, and Podsakoff (2012), refers to the disagreement that results from the dimension method of certain underlying variables that the measurements represent individually.

Likewise, there are several arguments about the significance of common method bias on data. Subsequently, to deal with the common method variance numerous strategies and statistical procedures can be applied. In addition, the academicians were directed to highlight the applicant's uncertainties by inviting them to have no particular response to the item questionnaires. Furthermore, they were also checked at their discretion in terms of their identity as well as any response that they would provide. Therefore, the items of scale enhancement have been employed under their goals.

#### **4.6 Descriptive Analysis of Major Variables**

The study requires analysis of the descriptive statistics of the main variables that have been determined. Initially, the study conducted the analysis of indicative indicators to reveal the average, standard deviation, minimum, and maximum values. The study employed Likert scale items which have a 5-point Likert scale. For crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs 1 strongly disagree, whereas 5 strongly agree according to the availability of crisis



management readiness, social capital, leadership behavior, and performance of service sector SMEs. Therefore, the findings of the descriptive statistics are shown in Table 4.7.

Table 4. 7  
*Descriptive Analysis of Major Variables*

|                                    | Average | Standard<br>Deviation | Minimum | Maximum |
|------------------------------------|---------|-----------------------|---------|---------|
| Crisis Management Readiness        | 3.82    | 0.97                  | 1       | 5       |
| Social Capital                     | 3.73    | 0.85                  | 1       | 5       |
| Leadership Behavior                | 3.45    | 0.94                  | 1       | 5       |
| Performance of Service Sector SMEs | 3.94    | 0.89                  | 1       | 5       |

#### **4.7 Analysis of Missing Data**

Tabachnick and Fidell (2013) found that missing values represent a major significant issue in their analysis of the study's data inspection. Previous researchers demonstrated that Quantitative research could suffer from erroneous parameter estimations, information loss, and decreased statistical power if missing data circumstances are ignored (Graham, 2009; Dong & Peng, 2013). Tabachnick and Fidell (2013) discovered that for a given sample size, no generally accepted threshold value for missing data could be approved.

Schafer and Graham (2002) revealed that in the multivariate analysis, missing data occurs at a rate of 5% and that data below 5% is insignificant. Furthermore, Bennett (2001) claimed that more than 10% of the values in each statistical analysis are missing, the results could be biased and invalid. Consequently, no statistics in the missing values analysis of this study had missing values greater than 5% of the time, with the range from 0.2 to 1.5%. George and Mallery (2001) discovered that the most common statistical technique for filling in missing data is the mean scores of issues

for variables. Therefore, in the current study, SPSS 25 has been applied to perform the statistical approach for missing values.

#### **4.8 Analysis of Normality**

The normal distribution of the data was assessed after examining the missing data. The normal distribution is an essential assumption of both statistical analysis and the structural equation model (Joseph F. Hair, Black, Babin, & Anderson, 2010). According to Henseler and Fassott (2009) and Hair, Ringle, and Sarstedt (2013), the PLS-SEM is a latent model that does not assume that the data distributions are normally distributed. It is crucial to determine whether the data pertains to being normal even though PLS-SEM is a non-parametric statistical approach and does not require normally distributed data (Hair, Ringle, & Sarstedt, 2013). Because bootstrapping may result in an overstating of the standard errors and because very non-normal data might make it challenging to establish the parameters.

"Normality" is defined as the form of the data distribution for a given metric variable and its relationship to the standard statistical distribution (Hair, Black, Babin, & Anderson, 2010). This study used the statistical model of Skewness and Kurtosis to check possible deviations from normality as well as the form of distribution to verify the normality (Joseph F. Hair, Black, Babin, & Anderson, 2010). However, Tabachnick and Fidell (2013) affirmed that when the sample size is above 200, divergence from the normality of Skewness and Kurtosis substantially does not affect the study.

Curran, West, and Finch (1996) determined that the skewness and kurtosis values must be less than 2 and 7 respectively. Furthermore, a similar argument by Joanes and Gill (1998) stated that absolute values of kurtosis greater than 10 and skewness greater than 3 could indicate a problem, whereas, if the values are higher than 20 it may indicate a highly significant issue. Therefore, based on recommendations, the absolute values of the Skewness and Kurtosis of all the items in the study are within the acceptable range of <2 and <7 individually as shown in Table 4.8.

Table 4. 8  
*Skewness and Kurtosis*

| <b>Variables</b>                   | <b>Skewness</b> | <b>Kurtosis</b> |
|------------------------------------|-----------------|-----------------|
| Crisis management readiness        | 1.76            | 6.64            |
| Social capital                     | 1.88            | 6.81            |
| Leadership behavior                | 1.91            | 6.73            |
| Performance of service sector SMEs | 1.86            | 6.93            |

Thus, the findings of normality analysis of all variables are indicated in Table 4.8, whereas for a better understanding analysis of normality, the results are also shown in Figure 4.5.

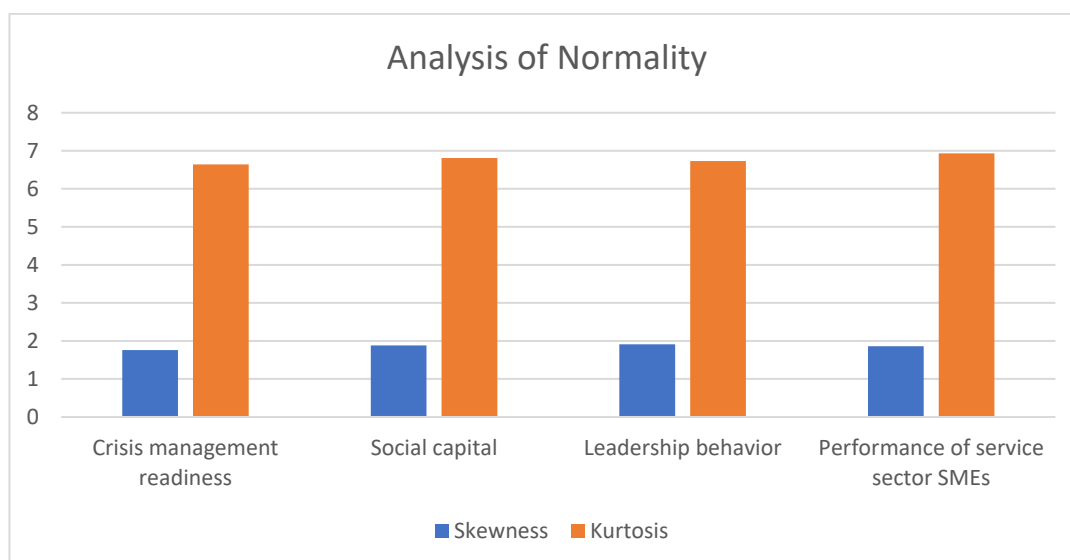


Figure 4. 5 *Analysis of Normality*

#### **4.9 Evaluation of Multicollinearity**

Multicollinearity refers to a situation where two or more than two exogenous latent variables become connected, where the independent variables exhibit a minimal correlation with another dependent variable (Hair, Black, Babin, & Anderson, 2010). Multicollinearity issues arise when there is a significant relationship among independent variables indicated by (Joseph F. Hair, Black, Babin, & Anderson, 2010; Tabachnick & Fidell, 2013). Hence, when two or more variables have a high degree of correlation, it indicates that they contain unnecessary information. Not all of them are necessary in the same analysis because they enhance the error terms.

Moreover, the standard error of the regression coefficient rises when multicollinearity across variables is effective, reducing the reliability of these coefficients' statistical significance. The most reliable statistical tests for multicollinearity are tolerance and Variance Inflation Factor (VIF), with threshold values are more than 0.1 and less than 10 (Hair, Ringle, & Sarstedt, 2013). Thus, initially, multicollinearity has been examined in this study by analyzing the correlation matrix and then by tolerance and VIF level for independent variables.

Furthermore, multicollinearity has been confirmed by the estimation of tolerance and VIF using regression results obtained by the SPSS collinearity diagnostic outcomes. Similarly, this is the most vital and reliable test for multicollinearity (Hair, Black, Babin, & Anderson, 2010). Table 4.9 reveals that the tolerance values range between 0.53 and 0.94 are significantly higher than 0.1 whereas VIF values range between 1.08 and 1.49 which are considerably less than 10. Hair, Black, Babin, and Anderson (2010), reveal that based on the tolerance level of less than 0.10 and VIF values of

more than 10 indicate stronger collinearity. Therefore, the results demonstrate that multicollinearity does not occur in this study.

Table 4. 9  
*Multicollinearity Analysis*

| <b>Variables</b>                   | <b>Tolerance</b> | <b>VIF</b> |
|------------------------------------|------------------|------------|
| Crisis Management Readiness        | 0.53             | 1.08       |
| Social Capital                     | 0.84             | 1.22       |
| Leadership Behavior                | 0.69             | 1.32       |
| Performance of Service Sector SMEs | 0.94             | 1.49       |

#### **4.10 Evaluation of PLS-SEM**

The analysis of the study involved an evaluation of PLS-SEM. The findings of the factor analysis are presented in this section. The reliability and validity of the variable measurements were evaluated in this study. The outer model indicates that the variables in the study are uni-dimensional in the context of item analysis. Afterward, checking the reliability and validity of the variable measurement, the structural model has also been assessed and the relationships between latent constructs were studied. Likewise, after verifying as well as investigating the data, the next stage is to evaluate the inner and outer models (Vinzi, Chin, Henseler, & Wang, 2010; Hair, Ringle, & Sarstedt, 2013). The measurement and structural models, which are the outer as well as inner models in the study were evaluated by using PLS-SEM. On the other hand, PLS-SEM has been utilized to investigate direct and moderating results. Sarstedt, M.Ringle, Smith, Reams, and F.HairJr, (2014) exhibited that these models which are theoretically utilized Smart PLS 3.0 to examine casual relationships among the variables.

Moreover, this model must be configured in such a way so that it can be simple to understand before performing the PLS-SEM analysis. Similarly, indicators should be simplified to establish the indicators which are reflective and formative. Thus, it is essential to note that configuration model is necessary as the method in analyzing the reflective measurement model has distinctions from methods that are used in analyzing the formative dimension model (Hair, Ringle, & Sarstedt, 2013; Lowry & Gaskin, 2014). Therefore, all indicators of latent constructs are considered in this study. Consequently, the latent variables which are unobserved, and those indicator variables that are observed are reflective as compared to formative variables.

Additionally, no significance has been given to second-order structures, which are composed of second along with third tiers of elements. In other words, the study constructs in the inner model were considered as first-order constructs. Therefore, according to series and correlations between the variables, hence in this study there are four latent variables, which are two independent variables (crisis management readiness and social capital) and one moderating variable leadership behavior whereas, in this study, the endogenous variable is the performance of service sector SMEs which is a dependent variable.

#### **4.10.1 Evaluation of Measurement Model**

The measurement model is also commonly referred as the outer model which determines the correlation between indicators and latent constructs (Chin W. W., 1998; Sarstedt, M.Ringle, Smith, Reams, & F.HairJr, 2014). In the current study, the measurement model has been assessed for reliability and validity. Similarly, Reliability and validity are two main important criteria for examining the variable

measurements (Kimberlin & Winterstein, 2008). Hays and Revicki (2005) referred to the term "reliability" which defines the consistency or stability of an evaluation across administrations. Likewise, in most circumstances, reliability is determined at the individual or at the construct level (Chin W. W., 2009).

Moreover, the present study uses PLS which is structural equation modeling, the scale has also been determined based on the outer loadings, Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE), and Discriminant Validity (Henseler & Fassott, 2009; Hair, Ringle, & Sarstedt, 2013). Therefore, figure 4.6 shows the measurement model which is to be considered.

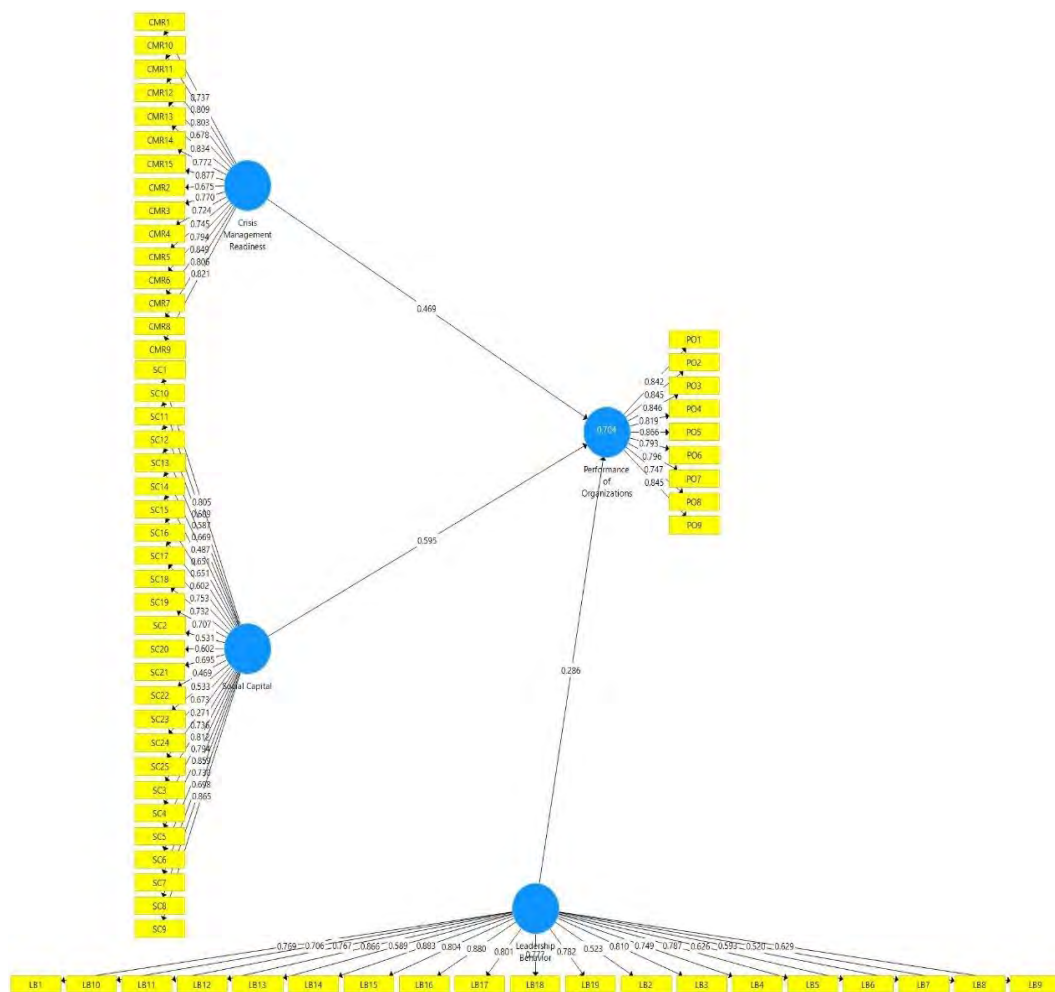


Figure 4. 6 The Measurement Model

#### 4.10.2 Outer Loadings

The study first assessed all outer loading to determine any problems with any items to determine the convergent validity. Similarly, all the items loading indications on their values of all variables including crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs range between a lower bound of 0.702 and a higher bound of 0.894 are shown in Table 4.10.

Table 4. 10  
*Outer Loadings*

|       | <b>Crisis<br/>Management<br/>Readiness</b> | <b>Leadership<br/>Behavior</b> | <b>Performance of<br/>Service Sector<br/>SMEs</b> | <b>Social Capital</b> |
|-------|--|--------------------------------|---|-----------------------|
| CMR1  | 0.737                                      |                                |   |                       |
| CMR10 | 0.809                                      |                                |   |                       |
| CMR11 | 0.803                                      |                                |   |                       |
| CMR12 | 0.778                                      |                                |   |                       |
| CMR13 | 0.834                                      |                                |   |                       |
| CMR14 | 0.772                                      |                                |   |                       |
| CMR15 | 0.877                                      |                                |   |                       |
| CMR2  | 0.775                                      |                                |   |                       |
| CMR3  | 0.770                                      |                                |   |                       |
| CMR4  | 0.724                                      |                                |   |                       |
| CMR5  | 0.745                                      |                                |   |                       |
| CMR6  | 0.794                                      |                                |   |                       |
| CMR7  | 0.849                                      |                                |   |                       |
| CMR8  | 0.806                                      |                                |   |                       |
| CMR9  | 0.821                                      |                                |   |                       |
| LB1   |  | 0.769                          |   |                       |
| LB10  |  | 0.706                          |   |                       |
| LB11  |  | 0.767                          |   |                       |
| LB12  |  | 0.866                          |   |                       |
| LB13  |  | 0.789                          |   |                       |
| LB14  |  | 0.883                          |   |                       |
| LB15  |  | 0.804                          |   |                       |
| LB16  |  | 0.880                          |   |                       |



|      | <b>Crisis<br/>Management<br/>Readiness</b> | <b>Leadership<br/>Behavior</b> | <b>Performance of<br/>Service Sector<br/>SMEs</b> | <b>Social Capital</b> |
|------|--|--------------------------------|---|-----------------------|
| LB17 |  | 0.801                          |   |                       |
| LB18 |  | 0.777                          |   |                       |
| LB19 |  | 0.782                          |   |                       |
| LB2  |  | 0.723                          |   |                       |
| LB3  |  | 0.810                          |   |                       |
| LB4  |  | 0.749                          |   |                       |
| LB5  |  | 0.787                          |   |                       |
| LB6  |  | 0.726                          |   |                       |
| LB7  |  | 0.893                          |   |                       |
| LB8  |  | 0.720                          |   |                       |
| LB9  |  | 0.829                          |   |                       |
| PO1  |  |                                | 0.842   |                       |
| PO2  |  |                                | 0.845   |                       |
| PO3  |  |                                | 0.846   |                       |
| PO4  |  |                                | 0.819   |                       |
| PO5  |  |                                | 0.866   |                       |
| PO6  |  |                                | 0.793   |                       |
| PO7  |  |                                | 0.796   |                       |
| PO8  |  |                                | 0.747   |                       |
| PO9  |  |                                | 0.845   |                       |
| SC1  |  |                                |   | 0.805                 |
| SC10 |  |                                |   | 0.789                 |
| SC11 |  |                                |   | 0.878                 |
| SC12 |  |                                |   | 0.769                 |
| SC13 |  |                                |   | 0.787                 |
| SC14 |  |                                |   | 0.851                 |
| SC15 |  |                                |   | 0.851                 |
| SC16 |  |                                |   | 0.702                 |
| SC17 |  |                                |   | 0.753                 |
| SC18 |  |                                |   | 0.732                 |
| SC19 |  |                                |   | 0.707                 |
| SC2  |  |                                |   | 0.731                 |
| SC20 |  |                                |   | 0.702                 |

|      | <b>Crisis<br/>Management<br/>Readiness</b> | <b>Leadership<br/>Behavior</b> | <b>Performance of<br/>Service Sector<br/>SMEs</b> | <b>Social Capital</b> |
|------|--|--------------------------------|---|-----------------------|
| SC21 |  |                                |   | 0.795                 |
| SC22 |  |                                |   | 0.769                 |
| SC23 |  |                                |   | 0.833                 |
| SC24 |  |                                |   | 0.773                 |
| SC25 |  |                                |   | 0.721                 |
| SC3  |  |                                |   | 0.836                 |
| SC4  |  |                                |   | 0.812                 |
| SC5  |  |                                |   | 0.794                 |
| SC6  |  |                                |   | 0.859                 |
| SC7  |  |                                |   | 0.730                 |
| SC8  |  |                                |   | 0.798                 |
| SC9  |  |                                |   | 0.865                 |

Table 4.10 assures that all items of all variables shown in the outer loading analysis were maintained in the model that has outer loading values of variables above 0.7 which signifies that a significant number of items have been remaining after the removing of item loading values which have less than 0.7 value. Likewise, it is emphasized that if less than 10 percent of the items are deleted, this does not significantly affect the reliability scale. Therefore, less than 10 percent of the items were omitted from the instrument that are used to reveal the variables in the study.

#### **4.10.3 Reliability and Validity**

The research contains Cronbach's alpha which was used to evaluate the validity of all variables which are crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs. Additionally, the analysis of composite reliability considers the internal consistency that demonstrates the reliability results among the same items. Hair, Ringle, and Sarstedt (2013) indicated that internal

consistency is an approach that is employed to ensure that the items used to measure the variables generate the same results if employed again in the same situation. Consequently, internal consistency has been assessed in this study using composite reliability. Likewise, the composite reliability varies between 0 and 1; the calculated values of composite reliability of all variables should be greater than 0.60 which is the threshold level of composite reliability referred to by Henseler and Fassott (2009). Subsequently, if the variable values are higher than 0.70 it is assessed as optimal and significant (Joseph F. Hair, Black, Babin, & Anderson, 2010) whereas, if the measured values are greater than 0.70 it were considered as highly significant (Joseph F. Hair, Black, Babin, & Anderson, 2010).

Furthermore, the study has examined Average Variance Extracted (AVE) to attain a convergence point in the measurement of variables. According to Henseler and Fassott (2009), convergent rationality indicates how closely related the same constructs are to one another theoretically. Hair, Ringle, and Sarstedt, (2013) demonstrated that the degree of association among the measurement of various items in similar variables is stated as convergent validity. Additionally, convergent validity ensures a threshold level of 0.7, and greater than 0.7 is deemed as significant (Joseph F. Hair, Black, Babin, & Anderson, 2010; Hair, Ringle, & Sarstedt, 2013).

Likewise, the findings also showed convergent validity, indicating that it has the potential to determine if the item loadings are significant or not significant. The AVE coefficients for certain indicators are adequate in terms of composite reliability. Furthermore, it was essential to determine that the elements shown are distinct latent variables, thus it shows their convergence validity. Similarly, the variables are

significantly convergent when the value of AVE is 0.5 and it can also show that more than 50 percent of the variation exists. Thus, AVE has been utilized to check the convergent validity in the study. Hence, in Table 4.12 prior researchers demonstrated that all variants of AVE values are higher than the threshold value of 0.50 (Henseler & Fassott, 2009; Hair, Ringle, & Sarstedt, 2013). Therefore, the results of Cronbach's Alpha, Composite reliability, and AVE are shown in Table 4. 11.

Table 4. 11  
*Reliability and Validity*

| Variables                          |  | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|------------------------------------|--|------------------|-----------------------|----------------------------------|
| Crisis Management Readiness        |  | 0.954            | 0.959                 | 0.611                            |
| Social Capital                     |  | 0.948            | 0.953                 | 0.558                            |
| Leadership Behavior                |  | 0.952            | 0.957                 | 0.545                            |
| Performance of Service Sector SMEs |  | 0.940            | 0.950                 | 0.677                            |

As shown above, the analysis of Cronbach's Alpha in Table 4.11 examined the calculated values of all variables which are crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs 0.954, 0.952, 0.940, and 0.948. Subsequently, the findings exhibit exceptional internal consistencies between items which are used to examine all variables. Therefore, Henseler, Ringle, and Sarstedt, (2015) stated that all variable values in Cronbach's Alpha must be higher than the level of 0.7.

Similarly, as shown in the above analysis of composite reliability, the determined values of variables have been higher than the threshold level of 0.70. Similarly, the lowest value of composite reliability for the performance of service sector SMEs is 0.950, whereas the highest value for composite reliability is 0.959 which is determined

for crisis management readiness as well as other variable values which is leadership behavior that is 0.957, and social capital that is 0.953.

Likewise, as shown by the above analysis of AVE in Table 4.11 indicates that all values of variables have been calculated for crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs which are 0.611, 0.545, 0.677, and 0.558 respectively. According to Hair, Ringle, and Sarstedt (2013), the criteria for the calculated values should be higher than 0.5 as shown above therefore, all the measured values of the variables are greater than 0.5 specifying that all the constructs are valid and should be kept in the model.

#### **4.10.4 Discriminant Validity by Fornell Larcker Criterion**

The discriminant validity of the study demonstrates the extent in which one speculative variable varies from other variables. Based on prior literature PLS path modeling reveals various methods for examining significant discriminant validity including the Fornell-Larcker criterion and the cross-loadings evaluation (Chin, 2009; Henseler & Fassott, 2009). However, the Fornell-Larcker and cross-loading approaches are the most common methods used for determining discriminant validity which are the focus of the current study.

Moreover, the previous researcher demonstrated that when the square root of AVEs is compared to relationships between constructs are off-diagonal items, then the Fornell Larcker criterions has been found to be discriminant valid (Claes & Larcker., 1981; Sarstedt, Ringle, Smith, Reams, & Hair, 2014). Similarly, the diagonal elements in consecutive rows and columns must be significantly higher than off-diagonal

components to gain suitable discriminant validity (Roldán & Sánchez-Franco, 2012). Therefore, Table 4.12 shows the findings of discriminant validity by using the Fornell-Larcker Criterion which are listed.

Table 4. 12

*Discriminant Validity by Fornell Larcker Criterion*

|                                       | <b>Crisis<br/>Management<br/>Readiness</b> | <b>Leadership<br/>Behavior</b> | <b>Performance of<br/>service sector SMEs</b> | <b>Social<br/>Capital</b> |
|---------------------------------------|--|--------------------------------|---|---------------------------|
| Crisis Management<br>Readiness        | 0.796                                      |                                |   |                           |
| Leadership Behavior                   | 0.782                                      | 0.791                          |   |                           |
| Performance of<br>Service Sector SMEs | 0.721                                      | 0.757                          | 0.823   |                           |
| Social capital                        | 0.677                                      | 0.739                          | 0.821   | 0.829                     |

After the confirmation of reliability and validity of all variables in the structural model, discriminant validity has been established and confirmed. Hair, Ringle, and Sarstedt, (2013) analyzed that reliability and validity are the two main criteria that are utilized to evaluate the outer model in the analysis of PLS-SEM. Therefore, Table 4.12 reveals that the measurements of all variables including crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs are valid methods of their variables which are based on their parameter estimations and statistical implication.

#### **4.10.7 Discriminant Validity by Heterotrait-Monotrait Ratio (HTMT)**

Discriminant validity is a statistical model which confirms that one variable is different from another variable by empirical standards. The heterotrait-monotrait ratio of correlations (HTMT) is a criterion in variance-based structural equation modeling which is used to evaluate discriminant validity. The HTMT measures how latent variable differentiates and if it is obviously less than one discriminant validity can be regarded as established (Ab Hamid, Sami, & Sidek., 2017). Ab Hamid, Sami, and

Sidek (2017) referred that HTMT criterion is a strict test that could identify any significant lack of discrimination among the latent variables.

Likewise, previous researchers stated a threshold value is 0.85 because the values of HTMT are close to 1 which implies a lack of discriminant validity (Ab Hamid, Sami, & Sidek., 2017; Hair Jr, Howard, & Nitzl., 2020). Similarly, the dominant methods for analyzing discriminant validity are the Fornell-Larcker criterion as well as the examination of cross-loadings, however, Henseler, Ringle, and Sarstedt (2015) determined through a simulation study that these methods do not consistently identify the absence of discriminant validity in typical research situations. Therefore, Table 4.13 shows the results of discriminant validity by using the heterotrait-monotrait ratio of correlations (HTMT) of all variables crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs are listed below.

Table 4. 13

*Discriminant Validity by Heterotrait-Monotrait Ratio (HTMT)*

|                                       | <b>Crisis Management<br/>Readiness</b> | <b>Leadership<br/>Behavior</b> | <b>Performance of<br/>service sector SMEs</b> | <b>Social<br/>Capital</b> |
|---------------------------------------|--|--------------------------------|---|---------------------------|
| Crisis Management<br>Readiness        |  |                                |   |                           |
| Leadership Behavior                   | 0.834                                  |                                |   |                           |
| Performance of Service<br>Sector SMEs | 0.756                                  | 0.829                          |   |                           |
| Social Capital                        | 0.821                                  | 0.786                          | 0.810   |                           |

Table 4.13 reveals that the measurements of all variables including crisis management readiness, social capital, leadership behavior, and performance of service sector SMEs are valid methods of their specific variables which are based on their parameter estimations and statistical implications. As the calculated values for all the constructs

with all other constructs fall below 0.85 hence as per HTMT criteria the discriminator validity is established.

#### **4.11 Evaluation of Structural Model**

This research has examined the measurement model which is the outer model, and its reliability and validity have also been demonstrated, hence the next step was to analyze the inner model results which is the structural model. This involved examining the inner models' ability for prediction as well as the relationships among the variables. Therefore, the essential principles for examining the structural model in PLS-SEM are the significance of path coefficients, coefficient of determination ( $R^2$ ), and evaluation of predictive relevance ( $Q^2$ ) are examined.

#### **4.12 Evaluation of Direct Effects**

The study involves systematic model analysis by using the structural model. This model was used to test hypothesis 1 to 4 particularly as well as to provide an inclusive picture of the results. The evaluation of the internal model is based on a study of the relationship between several independent variables and one dependent variable. The PLS-SEM algorithms have been utilized to examine the scope of path coefficients, as well as the significance of relationships that have been also examined through PLS-SEM bootstrapping approach in the Smart PLS 3.0. Likewise, the actual number of cases has been calculated by utilizing the initial number of cases and 5000 samples of bootstrapping have been used (Henseler & Fassott, 2009; Hair, Ringle, & Sarstedt, 2013).



Additionally, the initial model studied the analysis of the relationship between the independent variables (Crisis management readiness and social capital) and dependent variable (Performance of service sector SMEs) (H<sub>1</sub> and H<sub>2</sub>). Lastly, the moderating variable which is leadership behavior has been introduced as well as the interaction effect was analyzed between independent variables (Crisis management readiness and social capital) and dependent variable performance of service sector SMEs variable which are (H<sub>3</sub> and H<sub>4</sub>).

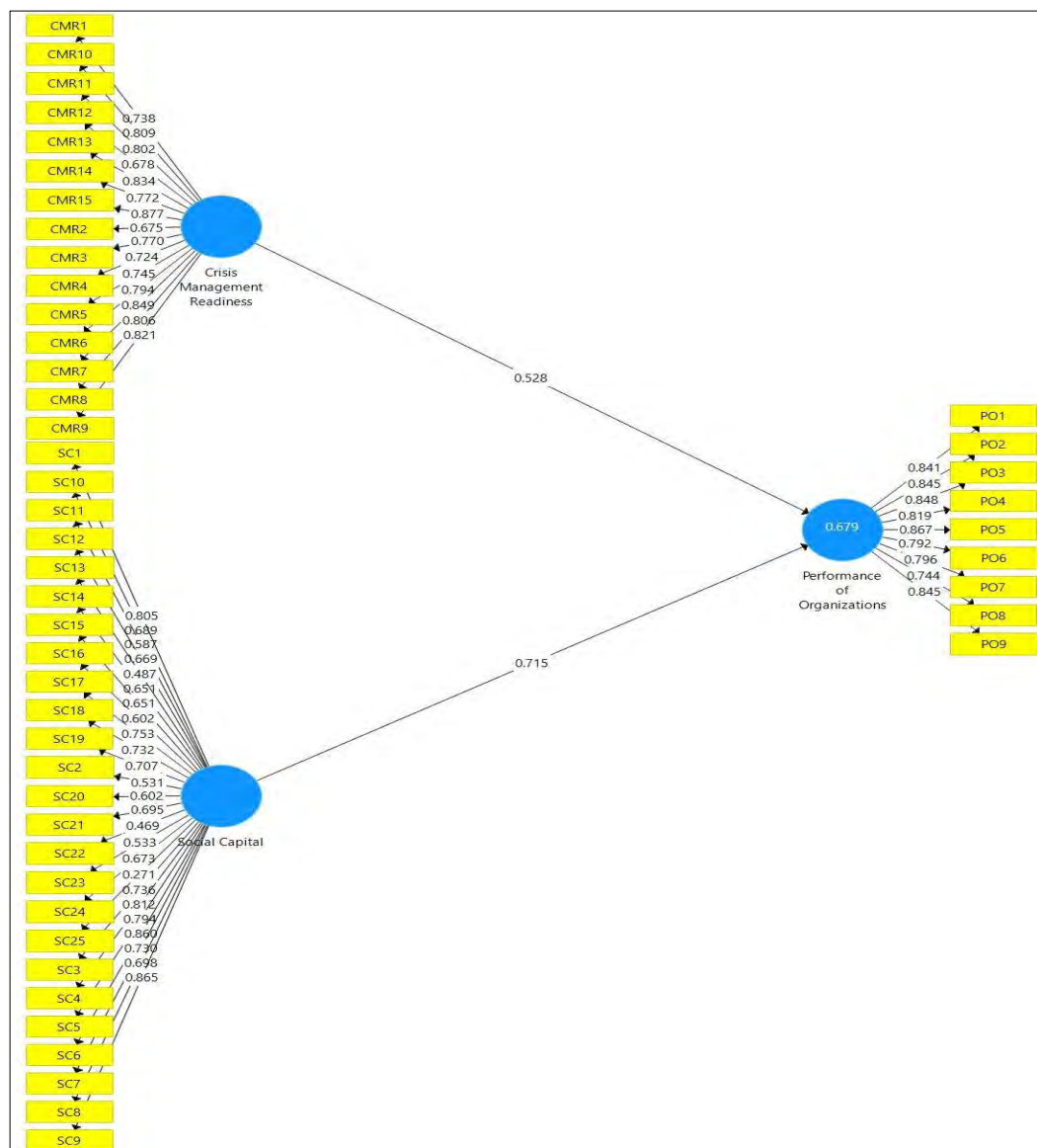


Figure 4. 7 PLS Direct Effect Algorithms

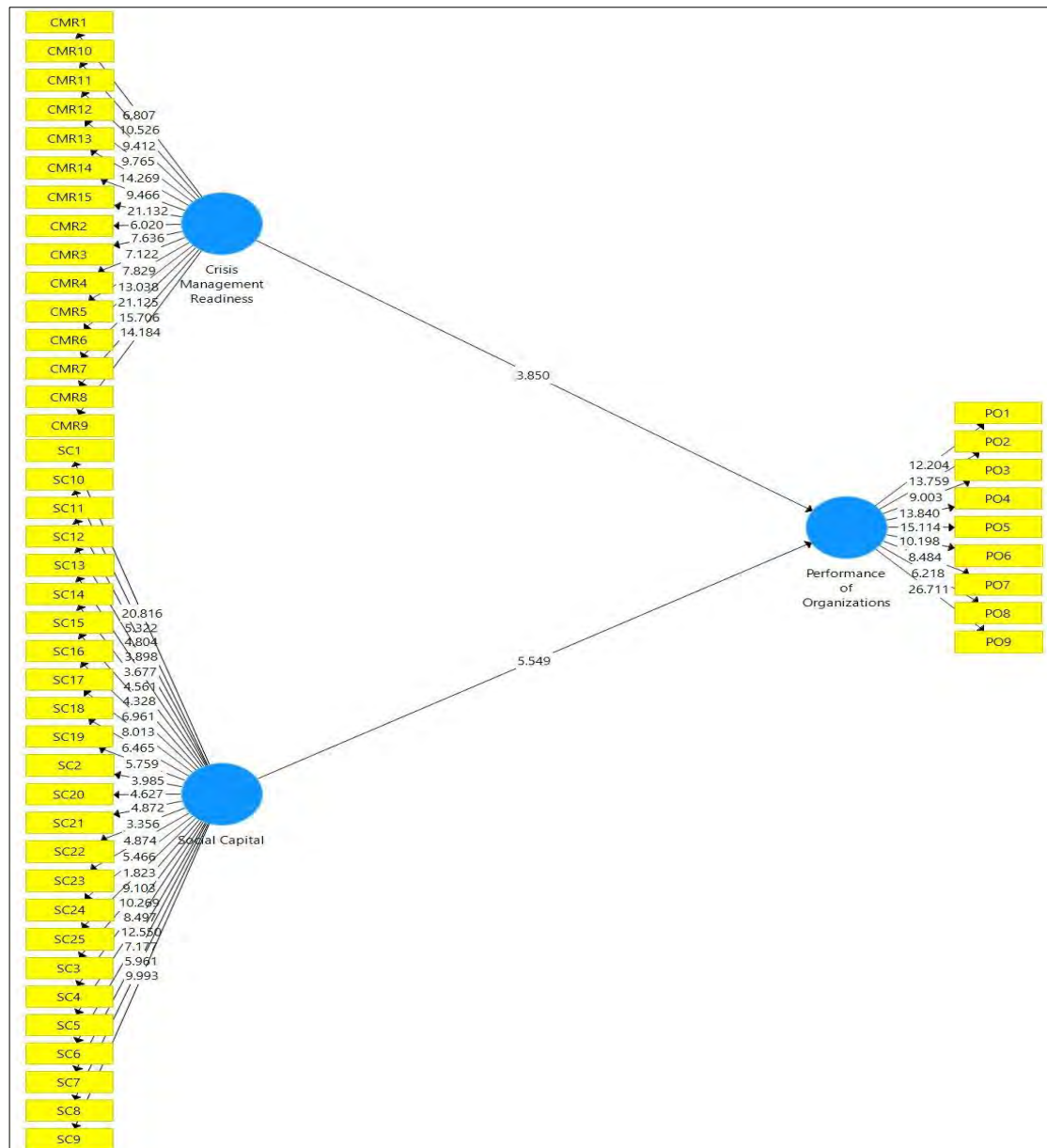


Figure 4. 8 PLS Direct Effect Bootstrapping

Based on the PLS-SEM algorithms the direct path coefficients are demonstrated in Figure 4.7. The results in Table 4.14 revealed that exogenous variables have a significant relationship over the endogenous variable. Likewise, the findings of PLS-SEM bootstrapping in Figure 4.8 showed that the relationship between independent variables and dependent variables is prominent at  $p < 0.005$ , whereas table 4.14 indicates the path coefficients, t statistics, and p values. Subsequently, the results of bootstrapping (Sarstedt, M.Ringle, Smith, Reams, & F.HairJr, 2014) by using the

bootstrapping method of 5000 subsamples identified that the relationship is significant, and the independent variables are significant over the dependent variable. Therefore, the findings of H<sub>1</sub> reveal that there is a significant relationship between crisis management readiness and performance of service sector SMEs ( $\beta=0.528$ ,  $t=3.850$ ,  $p=0.000$ ). Additionally, the outcomes of H<sub>2</sub> show that there is a significant relationship between social capital and performance of service sector SMEs ( $\beta=0.715$ ,  $t= 5.549$ ,  $p=0.000$ ) which is encouraged.

Table 4. 14  
*Direct Effects*

|   | <b>Original<br/>Sample<br/>(O)</b> | <b>Sample<br/>Mean<br/>(M)</b> | <b>Standard<br/>Deviation<br/>(STDEV)</b> | <b>T Statistics<br/>(O/STDEV)</b> | <b>P<br/>Values</b> |
|---|------------------------------------|--------------------------------|---|-----------------------------------|---------------------|
| Crisis management<br>readiness->Performance of<br>service sector SMEs | 0.528                              | 0.424                          | 0.137                                     | 3.850                             | 0.000               |
| Social capital->Performance<br>of service sector SMEs                 | 0.715                              | 0.335                          | 0.128                                     | 5.549                             | 0.000               |

The analysis of direct effects between crisis management readiness and social capital on Performance of service sector SMEs has been determined in the model which signifies that the direct effects have a significant relationship, whereas the moderating variable has been introduced in the model. Afterward, the evaluation of interaction terms over the relationship between the moderating variable and the dependent variable. Finally, the significant moderating effect on the relationship between independent variables and dependent variables.

#### **4.13 Addition of Moderator to the Model**

The analysis of moderator effects has been significantly examined through the examination of the moderator test (Henseler & Fassott, 2009). Firstly, only the direct effect of the moderating variable (leadership behavior) has been determined over the

dependent variable (performance of service sector SMEs). It is said that if the moderator is not directly linked with the dependent variable which is performance of service sector SMEs, the moderating effect should not be evaluated. Then to evaluate the moderating effect over the relationship between independent variables and dependent variables, the interaction term has been also introduced. Similarly, the moderator effect of the PLS algorithm is shown in Figure 4.9 whereas, the moderator effects of the PLS bootstrapping are shown in Figure 4.10.

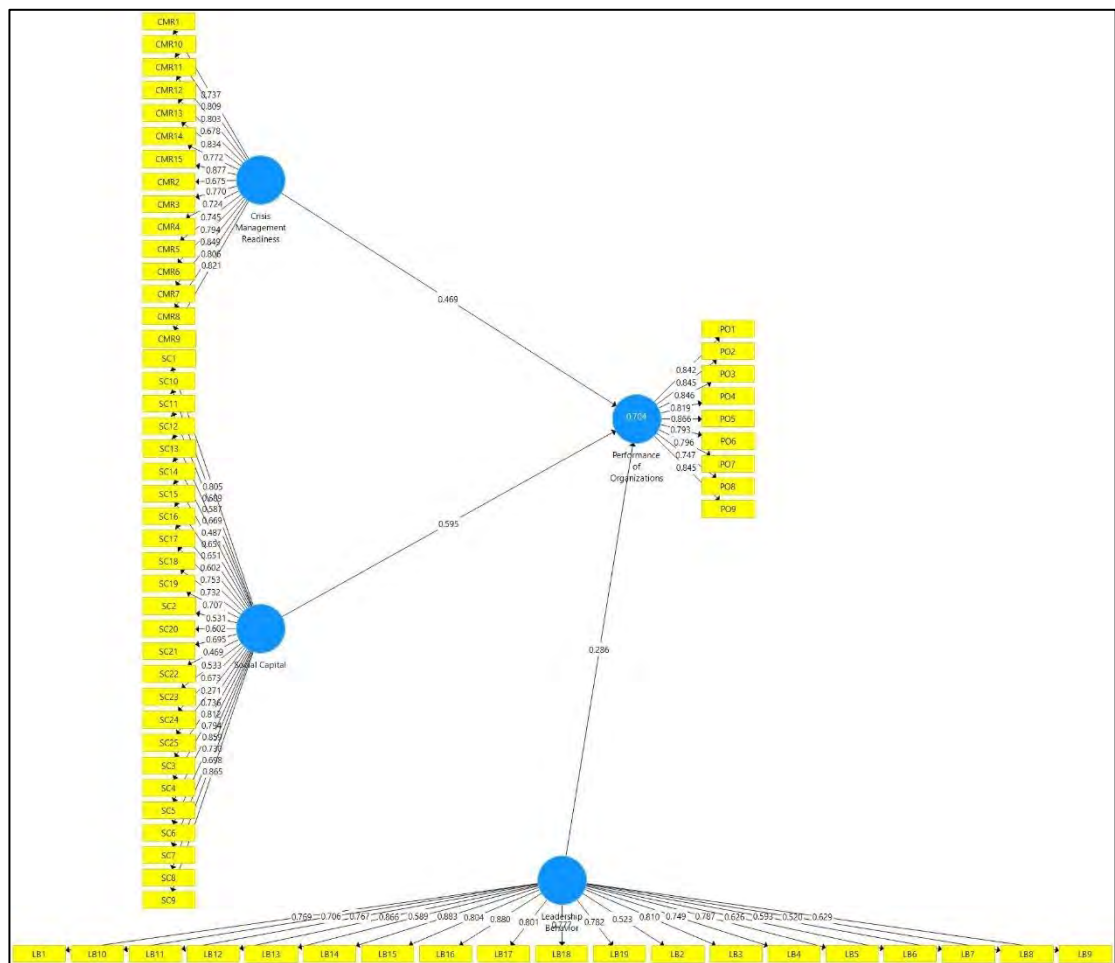


Figure 4. 9 Moderator Effects Algorithms

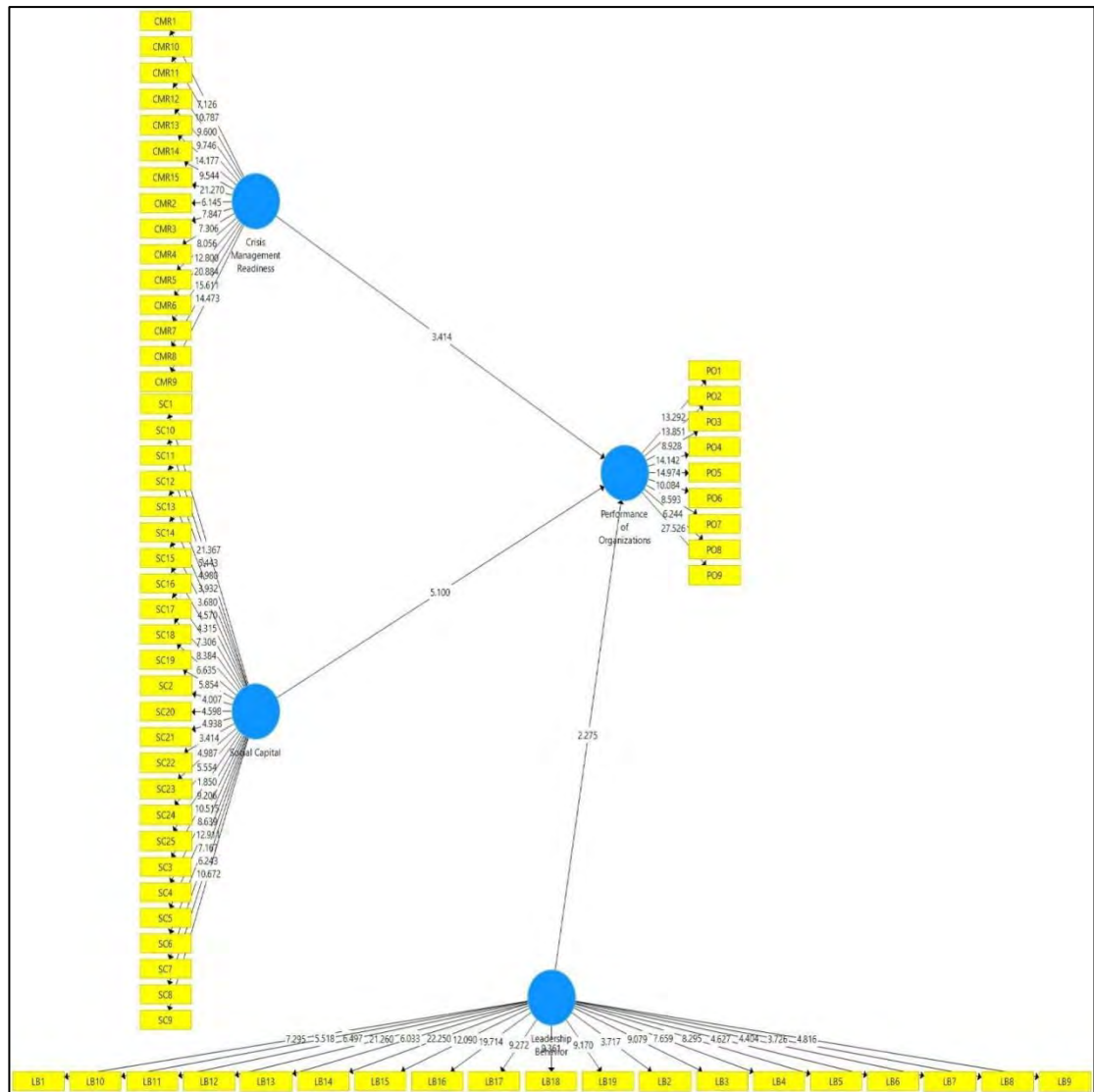


Figure 4. 10 Moderator Effects Bootstrapping

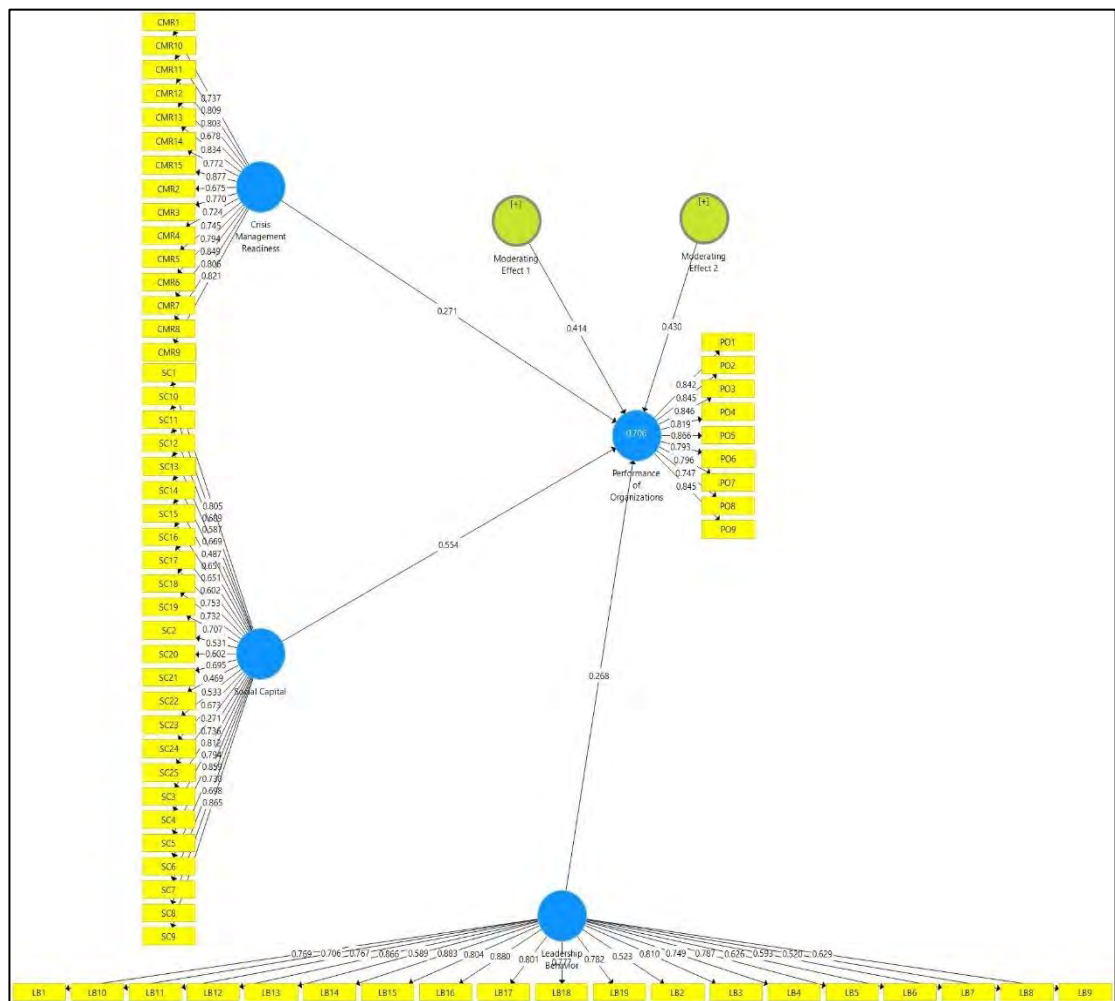
The findings of moderator effects in Table 4.15 reveal that there is a significant relationship between leadership behavior and performance of service sector SMEs ( $\beta=0.286$ ,  $t=2.275$ ,  $p=0.000$ ) which is supported.

Table 4. 15  
*Moderator Effects*

|  | Original<br>Sample(O) | Sample<br>Mean(M) | Standard<br>Deviation<br>(STDEV) | T Statistics | P Values |
|--|-----------------------|-------------------|----------------------------------|--------------|----------|
| Leadership Behavior-<br>>Performance of<br>service sector SMEs | 0.286                 | 0.019             | 0.125                            | 2.275        | 0.000    |

#### 4.14 Moderating Effects

The following findings of the leadership behavior over the relationship between crisis management readiness, social capital, and performance of service sector SMEs have been examined. After assuring that the moderator variable leadership behavior has an important effect regarding the dependent variable, which is performance of service sector SMEs, then the interaction term has been introduced. Similarly, in the introduction of the interaction term (moderating effect algorithm and moderating effect bootstrapping), the moderating effect of the moderating variable has been assigned to every relationship between independent variables and dependent variables in Figure 4.11 and Figure 4.12.



### Figure 4. 7 Moderating Effects Algorithms

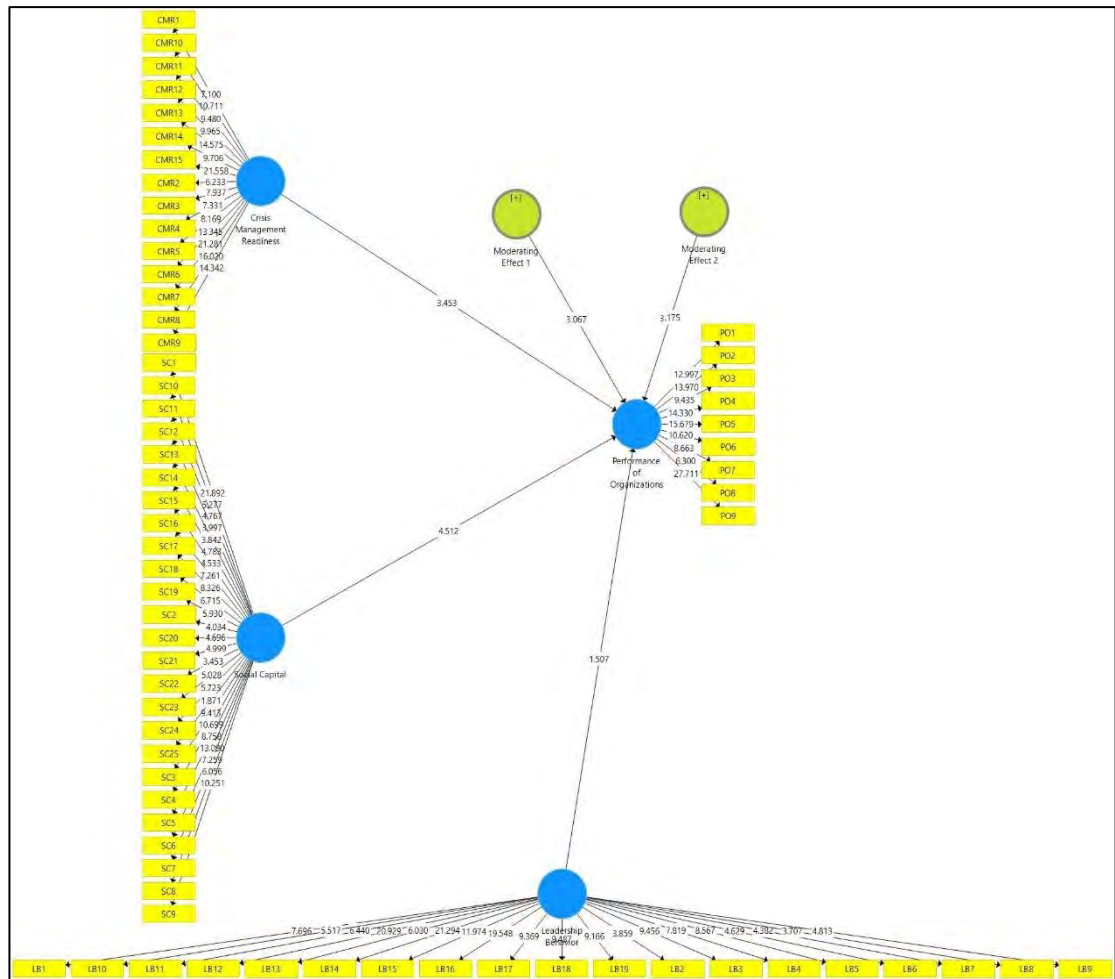


Figure 4. 8 Moderating Effect Bootstrapping

Table 4.16 reveals that H<sub>3</sub>, in which the leadership performance significantly moderates on the relationship between crisis management readiness and performance of service sector SMEs ( $\beta=0.414$ ,  $t=3.067$ ,  $p=0.000$ ) which is supported. Likewise, H<sub>4</sub> shows that leadership behavior significantly moderates on the relationship between social capital and performance of service sector SMEs ( $\beta=0.430$ ,  $t=3.175$ ,  $p=0.001$ ) which is encouraged. Therefore, all the determined values of the variables are mentioned in Table 4.16.

Table 4. 16  
*Moderating Effects*

|  | Original<br>Sample<br>(O) | Sample<br>Mean<br>(M) | Standard<br>Deviation<br>(STDEV) | T Statistics<br>(O/STDEV) | P<br>Values |
|--|---------------------------|-----------------------|----------------------------------|---------------------------|-------------|
| Crisis Management<br>Readiness*Leadership<br>Behavior->Performance of<br>service sector SMEs | 0.414                     | 0.257                 | 0.134                            | 3.067                     | 0.000       |
| Social Capital *Leadership<br>Behavior ->Performance of<br>service sector SMEs               | 0.430                     | 0.168                 | 0.135                            | 3.175                     | 0.000       |

#### 4.15 Coefficient of Determination ( $R^2$ )

The study examined the coefficient of determination which is also known as R-square to verify how much the number of differences in the endogenous variable may be identified by the influence of exogenous variables. R-square is an efficient method for assessing how independent variables predict dependent variables. In other words, the R square represents the extent to which a regression model effectively classifies the data. Consequently, the R-square value that is nearest to 1 specifies how well the regression model matches the data. Likewise, the prior study's context determines an appropriate R-square value which identifies 0.1 or 10 percent as the lowest acceptable value of R-square (Joseph F. Hair, Black, Babin, & Anderson, 2010).

Table 4.17 shows the R-squared value of the primary effect of the structural model as well as the moderating effect of the structural model. As shown in Table 4.16 the coefficient of determination for the core of the PLS effect was 0.679 without a moderator. This reveals that all variables which are crisis management readiness,



social capital, as well as performance of service sector SMEs collectively demonstrate 67.9 percent of the variation in leadership behavior.

Table 4.17 also showed that the coefficient of determination for controlling the effect of the PLS model value was 0.704 which was with moderator effect. This indicates that after analyzing the interface terms, the three latent variables (crisis management readiness, social capital, and performance of service sector SMEs) collectively demonstrate 0.704 percent of the distinction in leadership performance. Moreover, the combined coefficient of determination for the moderating effect of the PLS model and both main effects of the PLS model have been shown above. Therefore, it was possible to conclude that the R-square values given in the PLS model for both the main effects as well as the moderating effects were appropriate and acceptable.

Table 4. 17  
*Coefficient of Determination ( $R^2$ )*

| <b>Variable</b>                    | <b>R2 without Moderator</b> | <b>R2 with Moderator</b> |
|------------------------------------|-----------------------------|--------------------------|
| Performance of service sector SMEs | 0.679                       | 0.704                    |

#### **4.16 Evaluation of Predictive Relevance ( $Q^2$ )**

This study assesses a theoretical or structural model to determine prognostic significance at the construct level of  $Q^2$ , which is one of the criteria. The following prognostic significance criteria for the Stone-Geisser test have been used in this study to analyze an appropriate model (Geisser, 1974). As Wold (1982) indicated, models are assessed according to their ability to accurately represent the data when evaluating the findings of the Stone-Geisser predictive relevance test. In a similar way, the blindfolding technique involves cross-validated redundancy and two distinct types of  $Q^2$  values that may be found in PLS path modeling (Fornell & Cha, 1994). Chin W.

W., (1998) highly recommended using cross-validated redundancy to verify the prediction ability of structural models.

Likewise, a finding of cross validated relevance with  $Q^2$  value greater than zero indicates that a theoretical or structural model has predictive relevance, whereas, in a structural model if the value of  $Q^2$  is less than zero it reveals that the model has lack or no any predictive relevance (Chin W. W., 1998; Henseler & Fassott, 2009). According to (Chin W. W., 1998) the results of the Stone-Geisser test of predictive significance are demonstrated in Table 4.18. Therefore, table 4.18 shows that performance of service sector SMEs endogenous latent construct  $Q^2$  cross-validated redundancy value was 0.430, indicating that the structural model has a predictive influence in a study (Chin W. W., 1998; Henseler & Fassott, 2009).

Table 4. 18  
*Construct Cross Validated Redundancy*

|                                    | SSO     | SSE     | $Q^2(=1-SSE/SSO)$ |
|------------------------------------|---------|---------|-------------------|
| Performance of service sector SMEs | 891.000 | 507.739 | 0.430             |

#### 4.17 Summary of Hypothesis

In the next section the summary of the findings in terms of the hypothesis testing has been presented in table 4.19.

Table 4. 19  
*Summary of Hypothesis*

| Description |   |           |
|-------------|---|-----------|
| H1          | There is significant relationship between crisis management readiness and Performance of service sector SMEs.           | Supported |
| H2          | There is a significant relationship between social capital management readiness and Performance of service sector SMEs. | Supported |

| Description |  |           |
|-------------|--|-----------|
| H3          | Leadership behavior significantly moderates the relationship between crisis management readiness and performance of service sector SMEs. | Supported |
| H4          | Leadership behavior significantly moderates the relationship between social capital and performance of service sector SMEs.              | Supported |

#### 4.18 Chapter Summary

The research's results are based on the information collected, which is summarized in this chapter. Initially, the chapter begins with a background of the research. Then the response rate and non-response bias were determined. The participants' gender, age, educational qualification, and designation of respondents have also been measured as part of the demographic analysis with the support of their responses, whereas the common method bias has been also presented. Likewise, the elaborative findings of the major variables in this study which have been measured which include descriptive analysis, missing values, analysis of normality, as well as multicollinearity analysis have been measured which comprises VIF and tolerance.

Afterward, the multicollinearity analysis is the assessment of PLS-SEM. The PLS-SEM has two models' measurement and structure model. Initially, the measurement model has been analyzed which involves the Outer Loadings, Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE), and Discriminant Validity (Fornell and HTMT). Additionally, the structural model assessed the analysis of direct relationships which include PLS-SEM direct algorithms, as well as PLS-SEM direct bootstrapping analysis has been also examined along with the path coefficients for crisis management readiness, social capital, and performance of service sector SMEs. Furthermore, the evaluation of moderator effects and moderating effects have also

been conducted. Lastly, for examining the potential findings, the coefficient of determination and evaluation of predictive relevance have been studied in this chapter.

## **CHAPTER FIVE**

### **CONCLUSION AND FUTURE RECOMMENDATIONS**

#### **5.1 Introduction**

The findings of the study are presented in this chapter along with an overview of its goals and how those objectives relate to previous studies. The main goal of this study is to evaluate the relationship between crisis management readiness, social capital, and performance of service sector SMEs operating in the UAE. Another significant objective is to investigate the leadership behavior that acts as a moderator between crisis management readiness, social capital, and performance of service sector SMEs operating in UAE. Specifically, the implications of the study which involve theoretical, practical, and methodological have been determined for the latent variables. Lastly, the limitations and recommendations for future research have been also discussed.

#### **5.2 Recapitulation of Objectives**

The study tests the hypothesis for achieving the following research objectives to address the research questions based on the issue stated in the problem statement.

1. To investigate the relationship between social capital and Performance of Service sector SMEs in UAE.

2. To investigate the relationship between crisis management readiness and Performance of Service sector SMEs in UAE.
3. To examine how leadership behavior moderates the relationship between social capital and performance of Service sector SMEs in UAE.
4. To examine how leadership behavior moderates the relationship between crisis management readiness and Performance of Service sector SMEs in UAE.

### **5.3 Discussion on Hypothesis**

In this study, it primarily defined the perception of the information collected from the owners and managers of SMEs operating in UAE who are involved in performance of service sector SMEs. It analyzed the independent variables crisis management readiness, social capital, and moderating variable leadership behavior over the performance of service sector SMEs among owners and managers of SMEs operating in UAE. Therefore, the discussions over hypotheses are shown below.

H<sub>1</sub> Crisis management readiness has a significant influence over the performance of service sector SMEs in UAE.

H<sub>2</sub>: Social capital has a significant influence over the performance of service sector SMEs in UAE.

H<sub>3</sub>: Leadership behavior significantly moderates the relationship between Crisis management readiness and performance of service sector SMEs in UAE.

H<sub>4</sub>: Leadership behavior significantly moderates the relationship between social capital and performance of service sector SMEs in UAE.

### **5.3.1 Crisis Management Readiness and Performance of service sector SMEs**

The first hypothesis of the current research has been analyzed the relationship between crisis management readiness and performance of service sector SMEs. The hypothesis findings are supported by a sample of 375 respondents from owners and managers of SMEs operating in the UAE. Based on results of PLS modeling the current study reported that Crisis management readiness has a significant influence over performance of service sector SMEs ( $\beta=0.429$ ,  $t=2.791$ ,  $p=0.005$ ). As the measured value of  $t$  is 2.791 which is greater than the threshold level of 1.96 hence, the first hypothesis has been accepted that there is a strong relationship between crisis management readiness and performance of service sector SMEs.

Similarly, the  $p$ -value is 0.005 which is less than the threshold level of 0.05 which signifies that crisis management readiness has a significant influence over performance of service sector SMEs. Crisis management readiness and performance of service sector SMEs are vital aspects that impact their ability to navigate and recover from crises effectively. Organizations develop crisis readiness to avoid and mitigate crises, with factors like market dynamism, perceived likelihood of a crisis, and firm size influencing this readiness (Parnell, 2021). Crisis management involves strategic approaches to identify key responders, reduce negative impacts, and ensure employee well-being during crises. Effective crisis management plans protect key domains like people, facilities, technology, business operations, and brand reputation. Developing crisis readiness is essential for the service sector, with factors like the external environment, organizational size, and perceptions of potential threats influencing this process.

The efficiency of crisis management by itself might not be sufficient to comprehend how the service sector assists in maximizing performance. External factors such as knowledge and information also play a critical role in shaping the performance of service sector SMEs. Organizations, with their open and dynamic structures, must strike a balance between both internal and external factors to achieve suitable performance. The impact of highly competent leadership behavior on the performance of the service sector is crucial, but it may yield diverse results for small and medium-sized enterprises.

### **5.3.2 Social Capital and Performance of service sector SMEs**

The second hypothesis of the current research has analyzed the relationship between social capital and performance of service sector SMEs. The hypothesis findings are supported by a sample of 375 respondents from owners and managers of SMEs operating in UAE. Based on the results of PLS modeling the current study reported that social capital has a significant influence over the performance of service sector SMEs ( $\beta=0.429, t=2.791, p=0.005$ ). As the measured value of  $t$  is 2.791 which is greater than the threshold level of 1.96 hence, the second hypothesis has been accepted that there is a strong relationship between social capital and performance of service sector SMEs.

Similarly, the  $p$ -value is 0.005, which is less than the threshold level of 0.05 which signifies that social capital has a significant influence over the performance of service sector SMEs. Social capital enables better communication, collaboration, and trust among employees. When employees have strong social connections and networks, it fosters a culture of inclusion and belonging, which accelerates performance and



potential. Employees who feel more connected to their networks are more likely to report higher engagement, a sense of belonging, and sponsorship for career advancement.

Likewise, Organizations may use techniques like protecting confidential data to preserve a competitive edge or enhance resources to assess their social capital. Organizations with high social capital function more effectively through improved knowledge sharing, collective action, and alignment of goals. The reciprocity and trust built through social capital allow for smoother interactions and collaboration without unnecessary negotiations. This leads to higher productivity, innovation, and overall performance of service sector SMEs. Additionally, social capital is not depleted by use - it builds on itself as the service sector grows. Maintaining and growing social capital is key for retaining talented owners or managers who feel part of the organization's culture and community. Therefore, effective management of social capital requires promoting inclusion and equal access to networks and relationships across the service sector.

### **5.3.3 Leadership Behavior Moderates the Relationship between Crisis Management Readiness and Performance of service sector SMEs**

The third hypothesis of the current study has examined the leadership behavior moderates the relationship between crisis management and performance of service sector SMEs. The hypothesis findings are supported by a sample of 375 respondents from owners and managers of SMEs operating in UAE. Based on results of PLS modeling the current study reported that leadership behavior significantly moderates over the relationship between crisis management and performance of service sector SMEs ( $\beta=0.414$ ,  $t= 3.067$ ,  $p=0.000$ ). As the calculated value of  $t$  is 3.067 which is

higher than the threshold level of 1.96 thus, the third hypothesis has been accepted that leadership behavior has a strong relationship between crisis management and performance of service sector SMEs.

Similarly, the p-value is 0.000 which is less than the threshold level of 0.05 which indicates that leadership behavior significantly moderates the relationship between crisis management and performance of service sector SMEs. Leadership behavior plays a crucial role in moderating the relationship between crisis management readiness and performance of service sector SMEs. Effective leadership in crises inspires confidence among owners and managers in the service sector, setting the tone for how challenges were tackled and instilling a sense of purpose and direction during tumultuous times. The concept of "readiness" in crisis management emphasizes the importance of mental adaptability, an emotional leadership-focused mindset, and dynamic process-driven agility, all of which are affected by leadership behavior (Jin, Coombs, Wang, Meer, & Shivers, 2024). Additionally, leadership competencies such as situational awareness, improvisation, creativity, decisiveness, action, and communication are essential skills that leaders must master for effective crisis management readiness. Therefore, leadership behavior significantly moderates the relationship between crisis management readiness and performance of service sector SMEs.

#### **5.3.4 Leadership Behavior Moderates the Relationship between Social Capital and Performance of service sector SMEs**

The fourth hypothesis of the current study has been investigated that leadership behavior moderates the relationship between social capital and performance of service sector SMEs. The hypothesis findings are supported by a sample of 375 respondents

from owners and managers of SMEs operating in UAE. Based on the results of PLS modeling the current study reported that leadership behavior significantly moderates the relationship between social capital and performance of service sector SMEs ( $\beta=0.430$ ,  $t= 3.175$ ,  $p=0.000$ ). As the calculated value of  $t$  is 3.175 which is greater than the threshold level of 1.96 thus, the hypothesis has been accepted that leadership behavior is a strong relationship between social capital and performance of service sector SMEs.

Similarly, the  $p$ -value is 0.000 which is less than the threshold level of 0.05 which signifies that Leadership behavior significantly moderates the relationship between social capital and performance of service sector SMEs. Effective leadership plays a crucial role in leveraging social capital within a service sector of SMEs to enhance performance. Specifically, leadership behavior can influence how social capital is utilized, foster trust and collaboration among employees, and shape the overall effectiveness of social networks within the service sector.

Previous studies have shown that leadership behavior can impact the way social capital is harnessed to achieve performance of service sector SMEs. Effective leaders can facilitate the development of strong social ties, encourage knowledge sharing, and promote a culture of cooperation and mutual support among owners and managers. By fostering a positive work environment and encouraging open communication, leaders can enhance the quality of social interactions and strengthen the social capital within the service sector of SMEs to achieve performance (Alharthi & Khalifa, 2019).

Moreover, leadership behavior can influence how social capital translating into improved performance outcomes. Leaders who demonstrate transformational leadership qualities, such as inspiring vision, supportive communication, and empowerment of owners and managers, are more likely to maximize the benefits of social capital on performance of service sector SMEs. Transformational leaders can motivate owners and managers to collaborate effectively, innovate, and adapt to changing circumstances, thereby enhancing the overall performance of service sector SMEs.

#### **5.4 Contributions of the Study**

The findings of the present study provide the implications and results of the research which are analyzed under three numerous aspects; theoretical implications, practical implications, as well as methodological implications have significant contributions as a moderating effect of leadership behavior over the relationship between crisis management readiness, social capital and performance of service sector SMEs. Therefore, the discussion about theoretical implications, practical implications, and methodological implications are demonstrated below.

##### **5.4.1 Theoretical Contributions**

The research outcomes are estimated to the body of knowledge by supporting prior results, extending the literature about the understudied variables, and addressing the associated methodological issues linked with the context of the study. Specifically, this study is encouraged to shed light on the crisis management readiness, and social capital over the performance of service sector SMEs towards the owners and managers

of SMEs operating in UAE in addition to filling the gap in the scant literature. Subsequently, a discussion of various theoretical contributions is specified below.

The analysis of performance of service sector SMEs under SMEs operating in UAE can benefit from the initial theoretical contribution. The first theoretical contribution from the assessment of performance of service sector SMEs during declining performance, which is its unique setting has been largely ignored in prior studies. Prior studies of performance of service sector SMEs only examine organizations during common organizational circumstances which do not specify the specific type in which an organization is deemed affected in terms of performance. Along with this view, the current study measures that this prior line of studies measures the performance of service sector SMEs in an open undetermined organization.

Likewise, the other medium enterprises or large enterprises which are operating in UAE are also keen to learn from these empirical results given the common national views as well as practices about crisis management readiness, and social capital over the relationship with performance of service sector SMEs. Moreover, the examination of the impact of crisis management readiness and social capital on the execution of performance of service sector SMEs strategies is an additional contribution to enhancing the theoretical dimension within this framework.

#### **5.4.2 Practical Contributions**

Initially, the performance has been distinguished as the main roles for this study are crisis management readiness and social capital are linked with performance of service sector SMEs. The government authorities, owners, managers and policymakers must

understand that their decisions affect performance which has a direct effect on performance of service sector SMEs. Similarly, it is important to demonstrate how government authorities and policymakers could enhance the performance concern of the SMEs operating in UAE. Likewise, according to the literature, this research has identified that policies of performance of service sector SMEs lack leadership behavior as well as unfriendly characteristics of performance is the main cause of performance of service sector SMEs.

Moreover, the government has various service sector programs in terms of performance as well as support agencies to help as well as boost the performance of service sector SMEs. Lack of leadership behavior, origin country, as well as growth strategies such governments provide, can be the reason behind most of the performance issues. Then there is the fact that even those who are well-known are not well-managed in their efforts to guide the performance of service sector SMEs and relate it with the policymakers, and decision-makers, and hence they are still not being patronized. This indicates that the government needs to enhance the service sector in terms of performance, specifically the SMEs operating in UAE as well as make them well known to leadership behavior.

Additionally, facing issues in getting good knowledgeable leadership from internal and external sources, the owners and managers should encourage the service sector to enhance performance which are crisis management readiness, and social capital to enhance the responsibility of the leadership behavior towards achieving the performance. Therefore, having good leadership behavior could encourage leaders to perform and manage well in the SMEs operating in UAE but at the same time

performance of service sector SMEs should not be ignored. As a result, it is suggested that government authorities, decision-makers along with agencies should encourage the policies to enhance the performance of service sector SMEs to configure their crisis management readiness, and social capital to enhance the behavior of leadership. Moreover, the unfriendliness of the leadership behavior in the SMEs operating in UAE is certainly making the leader's behavior less important, leaders' behavior strategy is lacking performance concerns, as well as crisis management and social capital framework ignores the service sector SMEs issue in terms of achieving performance. However, when employees perceive leadership behavior to be not responsive toward achieving performance, they are least likely to force them towards the concerns of performance of service sector SMEs. Therefore, the decision-makers, policymakers, and government authorities should overview the performance and develop a performance management policy under which owners and managers who are facing issues in achieving performance of service sector SMEs should operate and be concerned. Additionally, they should create a performance of service sector SMEs policy that should be linked with crisis management readiness, and social capital among owners and managers who are facing issues of declining performance in the SMEs operating in UAE.

Based on the research findings and various previous studies, it seems it is empirically determined that crisis management readiness and social capital contribute to achieving performance of service sector SMEs. Therefore, the significance of crisis management readiness and social capital for achieving the performance of service sector SMEs cannot be ignored. Similarly, it is also important to note that over-concentration of

controlling measurement of crisis management readiness and social capital may result in lower behavior of leadership.

Finally, the findings of the study identified that crisis management readiness and social capital are crucial for catering for the declining performance of service sector SMEs. Therefore, owners and managers must consider while developing policies regarding leadership behavior because, in turn, it affected the performance of service sector SMEs. Hence, this research supports crisis management readiness and social capital among owners and managers of SMEs operating in UAE who are facing performance and the main responsible figure for leadership that could lead towards performance of service sector SMEs. Therefore, this study offered significant perspectives for decision-makers and policymakers in the SMEs operating in UAE, in addition to academicians who specialize in the performance of service sector SMEs as well as other medium or large enterprises that are operating in UAE and other significant neighboring organizations.

#### **5.4.3 Methodological Implications**

Along with its theoretical and practical contributions, this research also has important methodological implications. Initially, previous studies on the performance of service sector SMEs have primarily used SPSS, however, to the superior knowledge of the previous researchers, very few have used Smart PLS-SEM 3.0 to generate the outcomes referred to by Sarstedt, M.Ringle, Smith, Reams, and F. Hair Jr. (2014). Additionally, the measurement scales of crisis management and social capital variables in this research have been adapted from previous studies as stated in the operationalization section is being used for the first time in the GCC region.



Consequently, replicating the crisis management readiness and social capital study in another context is explained to confirm the reliability and validity. Likewise, outer loadings, Cronbach's alpha, composite reliability, average variance extracted, and discriminant validity have been evaluated and found to be sufficient, above the required threshold. Therefore, the current study adds to the methodology and performance of service sector SMEs' literature by establishing the reliability and validity of measures designed for the UAE context specifically in the SMEs.

### **5.5 Limitations of the Study**

In the current study, several limitations have been studied. The first limitation is that even though several variables affect performance of service sector SMEs, this research is limited to crisis management readiness, social capital, and leadership behavior. Another limitation of this study is that data has been collected in SMEs operating in UAE from the owners and managers as well as other government officials have not added to the respondents. Likewise, the nature of the study is cross-sectional. It involves the data collected in 2023 that can be examined in a limited time due to time as well as resource limitations.

In this study, the cross-sectional study has been conducted because the competencies are not able to develop and affect relationships between variables over a longer time. The current study depends on the assumption of owners and managers about achieving the performance of service SMEs based on crisis management and social capital. According to the data collected participants who may have their own unique perceptual biases and cognitive impairments when they are tested are likely to have some degree of confidence.

Moreover, the consideration of these variations, the present study makes a good effort to determine the relationship between crisis management, social capital, and performance of service sector SMEs because of the leadership behavior implementation among owners and managers of SMEs operating in UAE. Similarly, in this study results investigate the significant relationships among the variables that are studied. Additionally, the study sample was limited even if it included SMEs operating in UAE owners and managers who were facing a declining performance of service sector SMEs. Due to the study nature, the government authorities, employees, and other significant perceptions did not participate.

Hence, the use of reliable and valid instruments for performance collected from the owners and managers of SMEs operating in the UAE provides some strength towards the performance of service sector SMEs. Therefore, the findings of our study show that leadership behavior has a significant relationship between crisis management readiness, social capital as well as performance of service sector SMEs based on the perception of owners and managers only and ignoring the governing bodies' perception.

## **5.6 Recommendations of the Study**

The study recommends that further study could be conducted by using other factors to enhance performance of service sector SMEs about the opinion of crisis management and social capital about the opinion of leadership behavior over the performance of service sector SMEs among owners and managers of SMEs operating in UAE who are involved in achieving the performance of service sector SMEs to overcome the study's limitations. Similarly, empirical research on crisis management, social capital, and the

performance of service sector SMEs links to the implementation of leadership behavior through the SMEs operating in UAE to achieve the performance of service sector SMEs. As this research is cross-sectional in nature, future research could also investigate collecting data over a longer time, or longitudinal data collection. A longitudinal study could be very helpful because it could show how policies have affected the service sector SMEs over a longer period.

Additionally, the current study uses only owners and managers as participants. Similarly, future research may also consider employees of SMEs operating in UAE can also consider medium enterprises or large enterprises in UAE or other GCC regions. Furthermore, this study uses a quantitative research method, whereas future research can also analyze a qualitative method design. Likewise, it may be possible to conduct qualitative interviews with respondents to get a better understanding of the insights on how the variables under investigation may respond. The current research also implies a study in the performance of service sector SMEs which may encourage insight and facilitate the service sector SMEs in terms of performance among owners and managers of SMEs operating in UAE.

## **5.7 Conclusions**

The conclusions and results of the hypothesis testing of the study have demonstrated a highly significant indication of increasing the significance of the moderating effect of leadership behavior on the relationship between crisis management readiness, social capital, and performance of service sector SMEs. In addition, the present study was successful in addressing all the research questions and research objectives despite several limitations. Similarly, numerous studies have been conducted on the aspects

that affect performance of service sector SMEs, however, the current study focused on the theoretical gap by leadership behavior as a significant moderating variable for performance of service sector SMEs.

The findings of this study showed that owners and managers of SMEs operating in UAE are involved in achieving the performance of service sector SMEs. These results can be simplified given the service sector in terms of the performance in the SMEs operating in UAE among owners and managers who are involved in achieving the performance. Similarly, crisis management readiness and social capital can be improved by proper legislation resulting in achieving performance of service sector SMEs.

Moreover, this study also supports theoretical, practical, and methodological support for the moderating effect of leadership behavior over the relationship between crisis management readiness, social capital, and performance of service sector SMEs. Likewise, the findings demonstrate that even though there is a significant relationship between crisis management readiness, social capital, and performance of service sector SMEs, there is also a significant relationship between these variables. In other words, there is a significant relationship between leadership behavior and performance of service sector SMEs. Additionally, leadership behavior has a significant moderating impact on the relationship between crisis management readiness and performance of service sector SMEs. As a result, leadership behavior also significantly moderates the relationship between social capital and performance of service sector SMEs. This research was successful in analyzing how leadership behavior moderates the relationship between exogenous as well as endogenous variables.

The theoretical framework has been supported by underpinning theories (Resource Based View, and contingency theory) by analyzing the effect of crisis management readiness and social capital because of leadership behavior. Furthermore, the findings give us important inferences and assumptions of owners and managers who are facing a performance. On the other side, the study involved valuable theoretical and methodological implications to the emerging leadership behavior in terms of crisis management readiness, social capital, and performance of service sector SMEs which may further improve the performance of the SMEs operating in UAE. Lastly, the current study limitations have numerous future research objectives that have been anticipated.

## REFERENCES

- Ab Hamid, M. R., Sami, W., & Sidek., M. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *In Journal of Physics: Conference Series*. 890. IOP Publishing.
- Abdullahi, A. Z., Anarfo, E. B., & Anyigba, H. (2020). The impact of leadership style on organizational citizenship behavior: does leaders' emotional intelligence play a moderating role? *Journal of Management Development*, 39(9-10), 963-987. doi:<https://doi.org/10.1108/JMD-01-2020-0012>
- Adler, P. S., & Kwon, S.-W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17-40. doi:<https://doi.org/10.5465/amr.2002.5922314>
- Ahmed, A., Khuwaja, F. M., & Othman, I. b. (2018). Organizational factors and organizational performance: A resource-based view and social exchange theory viewpoint. *International Journal of Academic Research in Business and Social Sciences*, 8(3), 579-599. doi:DOI:10.6007/IJARBS/V8-I3/3951
- Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Shuib, N. L. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management & Data Systems*, 115(3), 570-588. doi:<https://doi.org/10.1108/IMDS-07-2014-0205>
- Alharthi, M. N., & Khalifa, G. S. (2019). Business continuity management and crisis leadership: An approach to re-engineer crisis performance within abu dhabi governmental entities. *International Journal on Emerging Technologies*, 10(2), 32-40.
- Ali, G. A., Hilman, H., & Gorondutse, A. H. (2020). Effect of entrepreneurial orientation, market orientation and total quality management on performance: Evidence from Saudi SMEs. *Benchmarking: An International Journal*, 27(4), 1503-1531. doi: <https://doi.org/10.1108/BIJ-08-2019-0391>
- Alkhuzaie, A. S., & Asad, M. (2018). Operating cashflow, corporate governance, and sustainable dividend payout. *International Journal of Entrepreneurship*, 22(4), 1-9.
- Alkhuzaie, A. S., Asad, M., Mansour, A. Z., Sulaiman, M. A., Kayani, U. N., & Asif, M. U. (2024). Compliance with accounting standards by Jordanian SMEs. *Ikonomicheski Izsledvania*, 33(1), 89-107.
- Allam, Z., Asad, M., Ali, A., & Ali, N. (2021). Visualization of knowledge aspects on workplace spirituality through bibliometric analysis. *2021 International Conference on Decision Aid Sciences and Application (DASA)* (pp. 446-450). Sakheer: IEEE. doi:10.1109/DASA53625.2021.9682372

- Allam, Z., Asad, M., Ali, N., & Malik, A. (2022). Bibliometric analysis of research visualizations of knowledge aspects on burnout among teachers from 2012 to January 2022. *022 International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 126-131). Chiangrai, Thailand: IEEE. doi:10.1109/DASA54658.2022.9765200
- Almansour, A. Z., Asad, M., & Shahzad, I. (2016). Analysis of corporate governance compliance and its impact over return on assets of listed companies in Malaysia. *Science International*, 28(3), 2935-2938.
- Aloulou, W. J. (2019). Impacts of strategic orientations on new product development and firm performances: Insights from Saudi industrial firms. *European Journal of Innovation Management*, 22(2), 257-280. doi:https://doi.org/10.1108/EJIM-05-2018-0092
- Alpaslan, C. M. (2009). Ethical management of crises: Shareholder value maximisation or stakeholder loss minimisation? *The Journal of Corporate Citizenship*, 36, 41-50.
- Amir, A., & Asad, M. (2018). Consumer's Purchase Intentions towards automobiles in Pakistan. *Open Journal of Business and Management*, 6, 202-213. doi:10.4236/ojbm.2018.61014
- Amjed, A., & Tirmzi, S. H. (2016). Effect of humor on employee creativity with moderating role of transformational leadership behavior. *Journal of Economics, Business and Management*, 4(10), 594–598.
- Aragón, C., Narvaiza, L., & Altuna, M. (2016). Why and how does social responsibility differ among SMEs? A social capital systemic approach. *Journal of Business Ethics*, 138, 365-384. doi:https://doi.org/10.1007/s10551-015-2632-2
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(3), 396-402. doi:https://doi.org/10.1177/002224377701400320
- Arshad, M. H. (2018, April 4). Effect of market orientation, learning orientation, and entrepreneurial orientation on SME's performance in the Pakistan context. *Dissertation*. Sintok, Kedah, Malaysia: University Utara Malaysia.
- Asad, M., Haider, S. H., Akhtar, M. B., & Javaid, M. U. (2011). Human Resource Practices and Enterprise Performance in Small and Medium Enterprises of Pakistan. In *First International Conference on Contemporary Issues of Business*, 1-18.
- Asad, M. (2011). Working capital management and corporate performance of textile sector in Pakistan. *Paradigms: A Research Journal of Commerce, Economics and Social Sciences*, 6(1), 100-114. doi:10.24312/paradigms060101
- Asad, M., & Abid, U. (2018). CSR practices and customer's loyalty in restaurant industry: Moderating role of gender. *NUML International Journal of Business & Management*, 13(2), 144-155.

- Asad, M., & Ahmed, S. Y. (2024). Utilizing Biofertilizer for achieving sustainable agriculture and rural development strategy towards Vision 2040, Oman. *Sustainability*, 16(10), 4015. doi:<https://doi.org/10.3390/su16104015>
- Asad, M., & Kashif, M. (2021). Unveiling success factors for small and medium enterprises during COVID-19 pandemic. *Arab Journal of Basic and Applied Sciences*, 28(1), 187-194. doi:<https://doi.org/10.1080/25765299.2020.1830514>
- Asad, M., & Sharif, M. N. (2016). Entrepreneurial orientation market orientation and performance of SMEs moderating effect of network ties. *2nd International Conference on Business Management* . Jakarta.
- Asad, M., Ahmad, I., Haider, S. H., & Salman, R. (2018). A critical review of islamic and conventional banking in digital era: A case of Pakistan. *International Journal of Engineering & Technology*, 7(4.7), 57-59.
- Asad, M., Aledeinat, M., Majali, T., Almajali, D. A., & Shrafat, F. D. (2024). Mediating role of green innovation and moderating role of resource acquisition with firm age between green entrepreneurial orientation and performance of entrepreneurial firms. *Cogent Business & Management*, 11(1), 2291850. doi:<https://doi.org/10.1080/23311975.2023.2291850>
- Asad, M., Altaf, N., Israr, A., & Khan, G. u. (2020). Data analytics and SME performance: A bibliometric analysis. *2020 International Conference on Data Analytics for Business and Industry: Way Towards a Sustainable Economy (ICDABI)* (pp. 1-7). Sakhir: IEEE. doi:10.1109/ICDABI51230.2020.9325661
- Asad, M., Asif, M. U., Allam, Z., & Sheikh, U. A. (2021). A mediated moderated analysis of psychological safety and employee empowerment between sustainable leadership and sustainable performance of SMEs. *2021 International Conference on Sustainable Islamic Business and Finance* (pp. 33-38). Sakheer: IEEE. doi:10.1109/IEEECONF53626.2021.9686340
- Asad, M., Asif, M. U., Bakar, L. J., & Altaf, N. (2021). Entrepreneurial orientation, big data analytics, and SMEs performance under the effects of environmental turbulence. *2021 International Conference on Data Analytics for Business and Industry (ICDABI)* (pp. 144-148). Zallaq: IEEE. doi:10.1109/ICDABI53623.2021.9655870
- Asad, M., Asif, M. U., Bakar, L. J., & Sheikh, U. A. (2021). Transformational leadership, sustainable human resource practices, sustainable innovation and performance of SMEs. *2021 International Conference on Decision Aid Sciences and Application (DASA)* (pp. 797-802). Sakheer: IEEE. doi:10.1109/DASA53625.2021.9682400
- Asad, M., Asif, M. U., Khan, A. A., Allam, Z., & Satar, M. S. (2022). Synergetic effect of entrepreneurial orientation and big data analytics for competitive advantage and SMEs performance. *2022 International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 1192-1196). Chiangrai, Thailand: IEEE. doi:10.1109/DASA54658.2022.9765158



- Asad, M., Asif, M. U., Sulaiman, M. A., Satar, M. S., & Alarifi, G. (2023). Open innovation: The missing nexus between entrepreneurial orientation, total quality management, and performance of SMEs. *Journal of Innovation and Entrepreneurship*, 12(79), 1-13. doi:<https://doi.org/10.1186/s13731-023-00335-7>
- Asad, M., Chethiyar, S. D., & Ali, A. (2020). Total quality management, entrepreneurial orientation, and market orientation: Moderating effect of environment on performance of SMEs. *Paradigms; A Research Journal of Commerce, Economics, and Social Sciences*, 14(1), 102-108. doi:10.24312/193014016
- Asad, M., Fryan, L. H., & Shomo, M. I. (2025). Sustainable entrepreneurial intention among university students: Synergetic moderation of entrepreneurial fear and use of artificial intelligence in teaching. *Sustainability*, 17(1), 290. doi:<https://doi.org/10.3390/su17010290>
- Asad, M., Haider, S. H., & Fatima, M. (2018). Corporate social responsibility, business ethics, and labor laws: A qualitative analysis on SMEs in Sialkot. *Journal of Legal, Ethical and Regulatory Issues*, 21(3), 1-7.
- Asad, M., Haider, S. H., & Javaid, M. U. (2010). Entrepreneurs perception towards growth of SMEs in Pakistan. *3rd International Applied Business Research Conference*. Islamabad: International Islamic University.
- Asad, M., Kashif, M., Sheikh, U. A., Asif, M. U., George, S., & Khan, G. u. (2021). Synergetic effect of safety culture and safety climate on safety performance in SMEs: Does transformation leadership have a moderating role. *International Journal of Occupational Safety and Ergonomics*, 1-7. doi:10.1080/10803548.2021.1942657
- Asad, M., Majali, T., Aledeinat, M., & Almajali, D. A. (2023). Green entrepreneurial orientation for enhancing SMEs financial and environmental performance: Synergetic moderation of green technology dynamism and knowledge transfer and integration. *Cogent Business & Management*, 10(3), 1-20. doi:<https://doi.org/10.1080/23311975.2023.2278842>
- Asad, M., Sulaiman, M. A., Awain, A. M., Alsoud, M., Allam, Z., & Asif, M. U. (2024). Green entrepreneurial leadership, and performance of entrepreneurial firms: Does green product innovation mediates? *Cogent Business & Management*, 11(1), 2355685. doi:<https://doi.org/10.1080/23311975.2024.2355685>
- Asif, M. U., Asad, M., Bhutta, N. A., & Khan, S. N. (2021). Leadership behavior and sustainable leadership among higher education institutions of Pakistan. *Sustainable Leadership and Academic Excellence International Conference (SLAE)* (pp. 1-6). Manama, Bahrain: IEEE Xplore. doi:10.1109/SLAE54202.2021.9788081

- Asif, M. U., Asad, M., Kashif, M., & Haq, A. u. (2021). Knowledge exploitation and knowledge exploration for sustainable performance of SMEs. *2021 Third International Sustainability and Resilience Conference: Climate Change* (pp. 29-34). Sakheer: IEEE. doi:10.1109/IEEECONF53624.2021.9668135
- Asrar-ul-Haq, M., Hafiz Yasir Ali, S. A., Iqbal, A., Iqbal, M. B., Suleman, N., Sadiq, I., & Haris-ul-Mahasbi, M. (2019). Impact of organizational politics on employee work outcomes in higher education institutions of Pakistan: Moderating role of social capital. *South Asian Journal of Business Studies*, 8(2), 185-200. doi:https://doi.org/10.1108/SAJBS-07-2018-0086
- Awain, A. M., Asad, M., Sulaiman, M. A., Asif, M. U., & Shanfari, K. S. (2025). Impact of supply chain risk management on product innovation performance of Omani SMEs: Synergetic moderation of technological turbulence and entrepreneurial networking. *Sustainability*, 17(7), 2903. doi:https://doi.org/10.3390/su17072903
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 99-120.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. doi:http://dx.doi.org/10.1037/0022-3514.51.6.1173
- Baruch, Y. (1999). Response rate in academic studies-A comparative analysis. *Human Relations*, 52(4), 421-438. doi:https://doi.org/10.1177/001872679905200401
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139-1160. doi:https://doi.org/10.1177/0018726708094863
- Bashir, A., & Asad, M. (2018). Moderating effect of leverage on the relationship between board size, board meetings and performance: A study on textile sector of Pakistan. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS)*, 39(1), 19-29.
- Beliaeva, Tatiana, Wales, G. S., & Gafforova, E. (2020). Benefiting from economic crisis? Strategic orientation effects, trade-offs, and configurations with resource availability on SME performance. *International Entrepreneurship and Management Journal*, 16(1), 165-194.
- Bhaduri, R. M. (2019). Leveraging culture and leadership in crisis management. *European Journal of Training and Development*, 43(5), 554-569. doi:https://doi.org/10.1108/EJTD-10-2018-0109
- Bilal, Z. O., & Sulaiman, M. A. (2021). Factors persuading customers to adopt islamic banks and windows of commercial banks services in Sultanate of Oman. *Review of International Geographical Education (RIGEO)*, 11(4), 651-660. doi:10.33403/rigeo. 800679

- Bowers, M. R., Hall, J. R., & Srinivasan, M. M. (2017). Organizational culture and leadership style: The missing combination for selecting the right leader for effective crisis management. *Business Horizons*, 60(4), 551-563. doi:<https://doi.org/10.1016/j.bushor.2017.04.001>
- Bryman, A., & Bell, E. (2015). *Business Research Methods*. Washington: Oxford University Press.
- Carmeli, A., & Schaubroeck, J. (2008). Organizational crisis-preparedness: The importance of learning from failures. *Long Range Planning*, 41(2), 177-196. doi:<https://doi.org/10.1016/j.lrp.2008.01.001>
- Chen, M., Liu, H., Wei, S., & Gu, J. (2018). Top managers' managerial ties, supply chain integration, and firm performance in China: A social capital perspective. *Industrial Marketing Management*, 74, 205-214. doi:<https://doi.org/10.1016/j.indmarman.2018.04.013>
- Chethiyar, S. D., Asad, M., Kamaluddin, M. R., Ali, A., & Sulaiman, M. A. (2019). Impact of information and communication overload syndrome on the performance of students. *Journal of Human and Social Sciences*, 390-406.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling.
- Chin, W. W. (2009). How to write up and report PLS analyses. In *In Handbook of Partial Least Squares: Concepts, Methods and Applications* (pp. 655-690). Berlin Heidelberg: Springer .
- Chmura Kraemer, H., Kiernan, M., Essex, M., & Kupfer, D. J. (2008). How and why criteria defining moderators and mediators differ between the Baron & Kenny and MacArthur approaches. *Health Psychology*, 27(S2).
- Claes, F., & Larcker., D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Clopton, A. W. (2011). Social capital and team performance. *Team Performance Management*, 17(7/8), 369-381. doi:<https://doi.org/10.1108/13527591111182634>
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods*, 1(1), 16-29.
- Damer, N., Al-Znaimat, A. H., Asad, M., & Almansour, A. Z. (2021). Analysis of motivational factors that influence usage of Computer Assisted Audit Techniques (CAATs) auditors in Jordan. *Academy of Strategic Management Journal*, 20(Special Issue 2), 1-13.

- Darcy, C., Hill, J., McCabe, T., & McGovern, P. (2014). A consideration of organisational sustainability in the SME context: A resource-based view and composite model. *European Journal of Training and Development*, 38(5), 398-414. doi:10.1108/EJTD-10-2013-0108
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22. doi:https://doi.org/10.1177/0047239520934018
- Dong, Y., & Peng, C.-Y. J. (2013). Principled missing data methods for researchers. *SpringerPlus*, 2, 1-17.
- Dubai SME. (2022). *The State of Small and Medium Enterprises in Dubai*. Dubai: Government of Emirates.
- Effendi, M. I., & Kusmantini, T. (2015). The moderating effect of contingency variables on the relationship between formal strategic planning and company performance. *Procedia-Social and Behavioral Sciences*, 211, 1132-1141. doi:10.1016/J.SBSPRO.2015.11.151
- Engelen, A., Gupta, V., Strenger, L., & Brettel, M. (2015). Entrepreneurial orientation, firm performance, and the moderating role of transformational leadership behaviors. *Journal of Management*, 41(4), 1069-1097. doi:10.1177/0149206312455244
- Fadhel, H. A., Aljalalma, A., Almuhanadi, M., Asad, M., & Sheikh, U. (2022). Management of higher education institutions in the GCC countries during the emergence of COVID-19: A review of opportunities, challenges, and a way forward. *The International Journal of Learning in Higher Education*, 29(1), 83-97. doi:https://doi.org/10.18848/2327-7955/CGP/v29i01/83-97
- Falamarzi, I. A., Udin, M. b., & Siam, M. R. (2021). Critical factors of crisis escalation between customers and front-line-security besides moderation of organizational culture at Dubai International airport. *International Journal of Entrepreneurship*, 25, 1-13.
- Farrukh, W., & Asad, M. (2017). The determinants of capital structure: A study on cement sector of Pakistan. *International Journal of Management Sciences and Business Research*, 6(2), 16-26.
- Floyd, J. F. (2013). *Survey Research Methods*. Sage Publications.
- Fornell, C., & Cha, J. (1994). Partial Least Squares. *Advanced Methods of Marketing Research*, 52-78.
- Geiger, M. A., Raghunandan, K., & Riccardi, W. (2014). The global financial crisis: U.S. bankruptcies and going-concern audit opinions. *Accounting Horizons*, 28(1), 59-75. doi:10.2308/acch-50659
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101-107. doi:https://doi.org/10.1093/biomet/61.1.101

- George, D., & Mallery, P. (2001). *SPSS for Windows*. Needham Heights, MA: A Pearson Education.
- Gerth, F., Ramiah, V., Toufaily, E., & Muschert, G. (2021). Assessing the effectiveness of Covid-19 financial product innovations in supporting financially distressed firms and households in the UAE. *Journal of Financial Services Marketing*, 26, 215-225. doi:<https://doi.org/10.1057/s41264-021-00098-w>
- Gómez, R. S., Pérez, J. G., López Martín, M. D., & García, C. G. (2016). Collinearity diagnostic applied in ridge estimation through the variance inflation factor. *Journal of Applied Statistics*, 43(10), 1831-1849. doi:[10.1080/02664763.2015.1120712](https://doi.org/10.1080/02664763.2015.1120712)
- Government of Dubai. (2019). *The State of Small and Medium Enterprises (SMEs) in Dubai*. Dubai: Government of Dubai.
- Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology*, 60, 549-576.
- Guerrero, S., Cayrat, C., & Cossette, M. (2022). Human resource professionals' human and social capital in SMEs: small firm, big impact. *The International Journal of Human Resource Management*, 33(16), 3252-3274. doi:<https://doi.org/10.1080/09585192.2021.1919739>
- Gupta, G., Tan, K. T., Ee, Y. S., & Phang, C. S. (2018). Resource-Based View of information systems: Sustainable and transient competitive advantage perspectives. *Australasian Journal of Information Systems*, 22.
- Haider, S. H., Asad, M., & Aziz, A. (2015). A survey on the determinants of entrepreneurial training effectiveness among micro finance institutions of Malaysia. *Mediterranean Journal of Social Sciences*, 6(6 S4), 396-403. doi:[10.5901/mjss.2015.v6n6s4p396](https://doi.org/10.5901/mjss.2015.v6n6s4p396)
- Haider, S. H., Asad, M., & Fatima, M. (2017). Entrepreneurial orientation and business performance of manufacturing sector small and medium scale enterprises of Punjab Pakistan. *European Business and Management*, 3(2), 21-28. doi:[10.11648/j.ebm.20170302.12](https://doi.org/10.11648/j.ebm.20170302.12)
- Haider, S. H., Asad, M., & Fatima, M. (2017). Responsibility of global corporations towards human resource to attain competitive advantage: A review. *Journal of Research in Administrative Sciences*, 6(2), 9-12.
- Haider, S. H., Asad, M., Atiq, H., & Fatima, M. (2017). Mediating role of opportunity recognition between credit, savings and performance of micro and small enterprises in Pakistan. *Journal of Advanced Research in Business and Management Studies*, 7(2), 91-99.
- Haider, S. H., Asad, M., Fatima, M., & Atiq, H. (2017). Mediating role of opportunity recognition between credit, savings and performance of micro and small enterprises in Pakistan. *Journal of Advanced Research in Business and Management Studies*, 7(2), 91-99.

- Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101-110. doi:<https://doi.org/10.1016/j.jbusres.2019.11.069>
- Hair, J. F., Black, B., Babin, B., & Anderson, R. E. (2010). *Multivariate Data Analysis*. IView Jersey: Pearson Education International.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1), 1-12.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, 40(3), 414-433. doi:10.1007/s1147-0261-6
- Hammami, S. M., Ahmed, F., Johny, J., & Sulaiman, M. A. (2021). Impact of knowledge capabilities on organisational performance in the private sector in Oman: An SEM approach using path analysis. *International Journal of Knowledge Management*, 17(1), 15-18. doi:10.4018/IJKM.2021010102
- Haq, M. A., Asad, M., Natarajan, V., Sankar, J. P., & Asif, M. U. (2021). Microfinance and empowerment: A case study on beneficiaries of a community development program. *Turkish Journal of Computer and Mathematics Education*, 12(9), 3282-3288. doi:<https://doi.org/10.17762/turcomat.v12i9.5479>
- Harrison, S., Henderson, J., Alderdice, F., & Quigley, M. A. (2019). Methods to increase response rates to a population-based maternity survey: A comparison of two pilot studies. *BMC Medical Research Methodology*, 19(1), 1-8.
- Hays, R. D., & Revicki, D. A. (2005). Reliability and validity (including responsiveness). *Assessing Quality of Life in Clinical Trials*, 2, 25-39.
- Henseler, J., & Fassott, G. (2009). Testing moderating effects in PLS path models: An illustration of available procedures. *Handbook of Partial Least Squares*, 713-735. doi:10.1007/978-3-540-32827-8\_31
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., . . . Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann. *Organizational Research Methods*, 17(2), 182-209.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. doi:10.1007/s11747-014-0403-8
- Hvass, K. A. (2013). Tourism social media and crisis communication: An erupting trend. *Tourism Social Science Series*, 18, 177-191. doi:[https://doi.org/10.1108/S1571-5043\(2013\)0000018012](https://doi.org/10.1108/S1571-5043(2013)0000018012)

- Israr, A., Asad, M., Altaf, N., & Victor, S. (2021). Training effectiveness and performance of micro small and medium sized enterprises. *Turkish Journal of Computer and Mathematics Education*, 12(9), 3289-3295. doi:<https://doi.org/10.17762/turcomat.v12i9.5480>
- Jabeen, R. (2014, July). Moderating effect of external environment on performance of SMEs in Pakistan. *Dissertation*. Sintok, Kedah, Malaysia: Universiti Utara Malaysia.
- Jansen, R. J., Curşeu, P. L., Vermeulen, P. A., Geurts, J. L., & Gibcus, P. (2011). Social capital as a decision aid in strategic decision-making in service organizations. *Management Decision*, 49(5), 734-747. doi:<https://doi.org/10.1108/00251741111130823>
- Javed, H. M., Yaqub, R. M., Ali, S., & Sulaiman, M. A. (2024). Mall relevance, shoppers' well-being and mall loyalty: Moderating role of social media celebrity. *International Journal of Retail & Distribution Management*, 52(2), 168-182. doi:<https://doi.org/10.1108/IJRDM-04-2023-0211>
- JimAndersén. (2021). A relational natural-resource-based view on product innovation: The influence of green product innovation and green suppliers on differentiation advantage in small manufacturing firms. *Technovation*, 104. doi:<https://doi.org/10.1016/j.technovation.2021.102254>
- Jin, Y., Coombs, W. T., Wang, Y., Meer, T. G., & Shivers, B. N. (2024). “READINESS”: A keystone concept beyond organizational crisis preparedness and resilience. *Journal of Contingencies and Crisis Management*, 32(1). doi:<https://doi.org/10.1111/1468-5973.12546>
- Joanes, D. N., & Gill, C. A. (1998). Comparing measures of sample skewness and kurtosis. *Journal of the Royal Statistical Society: Series D (The Statistician)*, 47(1), 183-189. doi:<https://doi.org/10.1111/1467-9884.00122>
- Joseph F. Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis A Global Perspective*. New York: Pearson Prentice Hall.
- Joseph F. Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis A Global Perspective*. New York: Pearson Prentice Hall.
- Kanaan, O. A., Alsoud, M., Asad, M., Ta’Amnha, M. A., & Al-Qudah, S. (2024). A mediated moderated analysis of knowledge management and stakeholder relationships between open innovation and performance of entrepreneurial firms. *Uncertain Supply Chain Management*, 12(4), 2383-2398. doi:<https://doi.org/10.5267/j.uscm.2024.5.028>
- Kashif, M., Asif, M. U., Ali, A., Asad, M., Chethiyar, S. D., & Vedamanikam, M. (2020). Managing and implementing change successfully with respect to COVID-19: A way forward. *PEOPLE: International Journal of Social Sciences*, 6(2), 609-624. doi:<https://doi.org/10.20319/pijss.2020.62.609624>

- Khalil, R., Asad, M., & Khan, S. N. (2018). Management motives behind the revaluation of fixed assets for sustainability of entrepreneurial companies. *International Journal of Entrepreneurship*, 22(Special), 1-9.
- Khaliq, C. A., Rehman, C. A., Roomi, M. A., Rehman, S., & Irem, K. (2014). The role of social capital and knowledge management in the performance of SMEs: An empirical investigation in Pakistan. *American Academic & Scholarly Research Journal*, 6(4).
- Khan, A. A., Asad, M., Khan, G. u., Asif, M. U., & Aftab, U. (2021). Sequential mediation of innovativeness and competitive advantage between resources for business model innovation and SMEs performance. *2021 International Conference on Decision Aid Sciences and Application (DASA)* (pp. 724-728). Sakheer: IEEE. doi:10.1109/DASA53625.2021.9682269
- Khan, S. N., Asad, M., Fatima, A., Anjum, K., & Akhtar, K. (2020). Outsourcing internal audit services; A review. *International Journal of Management*, 11(8), 503-517. doi:International Journal of Management
- Khushi, M., din, S. M., & Sulaiman, M. A. (2020). Effects of profitability measures on free cash flow; evidence from Pakistan Stock Exchange. *International Journal of Scientific & Technology Research*, 9(2), 3882-3889.
- Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacy*, 65(23), 2276-2284. doi:https://doi.org/10.2146/ajhp070364
- Krishnan, C. S., Ganesh, L. S., & Rajendran, C. (2022). Entrepreneurial Interventions for crisis management: Lessons from the Covid-19 Pandemic's impact on entrepreneurial ventures. *International Journal of Disaster Risk Reduction*, 72(1), 102830. doi:https://doi.org/10.1016/j.ijdr.2022.102830
- Laursen, K., & Salter, A. (2006). Open for innovation: The role of openness in explaining innovation performance among U.K. manufacturing firms. *Strategic Management Journal*, 27(2), 131-150.
- Lee, C., & Hallak, R. (2020). Investigating the effects of offline and online social capital on tourism SME performance: A mixed-methods study of New Zealand entrepreneurs. *Tourism Management*, 80. doi:https://doi.org/10.1016/j.tourman.2020.104128
- Lee, N., Sameen, H., & Cowling, M. (2015). Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44(2), 370-380. doi:https://doi.org/10.1016/j.respol.2014.09.008
- Lei, M., & Lomax, R. G. (2005). The effect of varying degrees of nonnormality in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 12(1), 1-27. doi:10.1207/s15328007sem1201\_1



- Liu, C.-H., & Lee, T. (2015). Promoting entrepreneurial orientation through the accumulation of social capital, and knowledge management. *International Journal of Hospitality Management*, 46, 138-150. doi:<https://doi.org/10.1016/j.ijhm.2015.01.016>
- Liu, Y. (2013). Organizational culture, leadership behaviors, and employee attitude in Chinese SMEs: Empirical evidence. *China-USA Business Review*, 12(11).
- Liu-Lastres, B., & Cahyanto, I. P. (2023). Are we always ready? Examining event professionals approaches to risk and crisis management and resilience. *Tourism Management Perspectives*, 46, 101073. doi:<https://doi.org/10.1016/j.tmp.2023.101073>
- Lowry, P. B., & Gaskin, J. (2014). Partial Least Squares (PLS) Structural Equation Modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. *IEEE Transactions on Professional Communication*, 57(2), 123-146. doi:10.1109/TPC.2014.2312452
- Majali, T., Alkaraki, M., Asad, M., Aladwan, N., & Aledeinat, M. (2022). Green transformational leadership, green entrepreneurial orientation and performance of SMEs: The mediating role of green product innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4). doi:<https://doi.org/10.3390/joitmc8040191>
- Mansoori, H. M., Alsaud, A. B., & Yas, H. (2021). The impact of Covid 19 on increasing the cost of labor and project price in the United Arab Emirates. *International Journal of Pharmaceutical Research*, 13(1), 1-8. doi:<https://doi.org/10.31838/ijpr/2021.13.01.691>
- Maqbool, S., Anwar, S., & -ur-rehman, H. (2018). Competitiveness and comparative advantage of Pakistan in leather and leather products trade: Analysis and trends. *European Online Journal of Natural and Social Sciences*, 7(1).
- Marques-Quinteiro, P., Vargas, R., Eifler, N., & Curral, L. (2019). Employee adaptive performance and job satisfaction during organizational crisis: The role of self-leadership. *European Journal of Work and Organizational Psychology*, 28(1), 85-100 . doi:<https://doi.org/10.1080/1359432X.2018.1551882>
- Menike, L. (2020). Effect of social capital on firm performance: An empirical study of small enterprises in Sri Lanka. *Journal of Social Sciences Research*, 16, 108-125.
- Mertzanis, C., Balntas, V., & Pantazopoulos, T. (2019). Internal auditor perceptions of corporate governance in Greece after the crisis. *Qualitative Research in Accounting & Management*, 17(2), 201-227. doi:<https://doi.org/10.1108/QRAM-07-2018-0045>
- Mole, K., North, D., & Baldock, R. (2017). Which SMEs seek external support? Business characteristics, management behaviour and external influences in a contingency approach. *Environment and Planning C: Politics and Space*, 35(3), 476-499. doi:10.1177/0263774X16665362

- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20-35.
- Newman, A., Schwarz, S., & Borgia, D. (2014). How does microfinance enhance entrepreneurial outcomes in emerging economies? The mediating mechanisms of psychological and social capital. *International Small Business Journal*, 32(2), 158-179. doi:10.1177/0266242613485611
- Parnell, J. A. (2021). an ounce of prevention: What promotes crisis readiness and how does it drive firm performance? *American Business Review*, 24(1). doi:10.37625/abr.24.1.90-113
- Petzold, S., Barbat, V., Pons, F., & Zins, M. (2019). Impact of responsive and proactive market orientation on SME performance: The moderating role of economic crisis perception. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 36(4), 459-472. doi:https://doi.org/10.1002/cjas.1514
- Piedade, L. d., & Warnock-Smith, D. (2021). Crisis and disruption communications management in the airport sector : The effective use of social media. *Journal of Air Transport Studies*, 12(1). doi:https://doi.org/10.38008/jats.v12i1.173
- Pirolo, L., & Presutti, M. (2019). The impact of social capital on the start-ups' performance growth. *Journal of Small Business Management*, 48(2), 197-227. doi:10.1111/j.1540-627X.2010.00292.x
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569. doi:10.1146/annurev-psych-120710-100452
- Porter. (2008). *The competitive advantage of nations*. Simon and Schuster.
- Porter, M. E. (2007). Clusters and economic policy: Aligning public policy with the new economics of competition. *Harvard Business Review*, 1-10.
- Purwati, A. A., Budiyo, B., Suhermin, S., & Hamzah, M. L. (2021). The effect of innovation capability on business performance: The role of social capital and entrepreneurial leadership on SMEs in Indonesia. *Accounting*, 7(2), 3323-3330. doi:10.5267/j.ac.2020.11.021
- Qalati, S. A., Ostic, D., Sulaiman, M. A., Gopang, A. A., & Khan, A. (2022). Social media and SMEs' performance in developing countries: effects of technological-organizational-environmental factors on the adoption of social media. *SAGE Open*, 12(2), 1-13. doi:10.1177/21582440221094594
- Quinlan, C., Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2018). *Business Research Methods* (2 ed.). London: Cengage Learning.

- Ramon-Jeronimo, J. M., Florez-Lopez, R., & Araujo-Pinzon, P. (2019). Resource-based view and SMEs performance exporting through foreign intermediaries: The mediating effect of management controls. *Sustainability*, 11(12). doi:<https://doi.org/10.3390/su11123241>
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education*, 2, 923-945.
- Rass, M., Dumbach, M., Danzinger, F., Bullinger, A. C., & Moeslein, K. M. (2013). Open innovation and firm performance: The mediating role of social capital. *Creativity and Innovation Management*, 22(2), 177-194.
- Riphah, H. Z., Ali, S., Danish, M., & Sulaiman, M. A. (2022). Factors affecting consumers intentions to purchase dairy products in Pakistan: a cognitive affective-attitude approach. *Journal of International Food & Agribusiness Marketing*. doi:10.1080/08974438.2022.2125919
- Rogelberg, t. G., & Stanton, J. M. (2007). Introduction: Understanding and dealing with organizational survey nonresponse. 10(2), 195-209. doi:<https://doi.org/10.1177/1094428106294693>
- Roldán, J. L., & Sánchez-Franco, M. J. (2012). Variance-based structural equation modeling: Guidelines for using partial least squares in information systems research. 193-221. IGI global.
- Rouziès, D., & Hulland, J. (2014). Does marketing and sales integration always pay off? Evidence from a social capital perspective. *Journal of the Academy of Marketing Science*, 42(5), 511-527. doi:10.1007/s11747-014-0375-8
- Saleem, I., Al-Breiki, N. S., & Asad, M. (2024). The nexus of artificial intelligence, frugal innovation and business model innovation to nurture internationalization: A survey of SME's readiness. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(3), 100326. doi:<https://doi.org/10.1016/j.joitmc.2024.100326>
- Salehi, M., Fahimi, M. A., Zimon, G., & Homayoun, S. (2022). The effect of knowledge management on intellectual capital, social capital, and firm innovation. *Journal of Facilities Management*, 20(5), 732-748. doi:<https://doi.org/10.1108/JFM-06-2021-0064>
- Salem, S. F., Alanadoly, A. B., & Sulaiman, M. A. (2023). Immersive gaming in the fashion arena: an investigation of brand coolness and its mediating role on brand equity. *Journal of Research in Interactive Marketing*. doi:<https://doi.org/10.1108/JRIM-02-2023-0053>
- Sarstedt, M., M.Ringle, C., Smith, D., Reams, R., & F.HairJr, J. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105-115. doi:<https://doi.org/10.1016/j.jfbs.2014.01.002>

- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105-115. doi:<https://doi.org/10.1016/j.jfbs.2014.01.002>
- Satar, M. S., Alarifi, G., Alkhoraif, A. A., & Asad, M. (2023). Influence of perceptual and demographic factors on the likelihood of becoming social entrepreneurs in Saudi Arabia, Bahrain, and United Arab Emirates – an empirical analysis. *Cogent Business & Management*, 10(3), 1-20. doi:<https://doi.org/10.1080/23311975.2023.2253577>
- Satar, M., Alharthi, S., Asad, M., Alenazy, A., & Asif, M. U. (2024). The moderating role of entrepreneurial networking between entrepreneurial alertness and the success of entrepreneurial firms. *Sustainability*, 16(11), 4535. doi:<https://doi.org/10.3390/su16114535>
- Sattar, M. s., Alarifi, G., & Asad, M. (2021). Gaining performance among tobacco sector small and medium enterprises through market orientation. *Tobacco Regulatory Science (TRS)*, 7(6-1), 6879-6887.
- Schafer, J. L., & Graham., J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7(2), 147–177. doi:<https://doi.org/10.1037/1082-989X.7.2.147>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Sen, S., & Cowley, J. (2013). The relevance of stakeholder theory and social capital theory in the context of CSR in SMEs: An Australian perspective. *Journal of Business Ethics*, 118, 413-427. doi:<https://doi.org/10.1007/s10551-012-1598-6>
- Setini, M., Yasa, N. N., Supartha, I. W., Giantari, I. G., & Rajiani, I. (2020). The passway of women entrepreneurship: Starting from social capital with open innovation, through to knowledge sharing and innovative performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 2, 1-14. doi:<https://doi.org/10.3390/joitmc6020025>
- Shabbir, M. S., Asad, M., Faisal, M., & Salman, R. (2019). The relationship between product nature and supply chain strategy: An empirical evidence. *International Journal of Supply Chain Management*, 8(2), 654-658.
- Shaker, R. Z., Asad, M., & Zulfiqar, N. (2018). Do predictive power of fibonacci retracements help the investor to predict future? A study of Pakistan Stock Exchange. *International Journal of Economics and Financial Research*, 4(6), 159-164.
- Shear, F., Ashraf, B. N., & Sadaqat, M. (2021). Are investors' attention and uncertainty aversion the risk factors for stock markets? International evidence from the COVID-19 crisis. *Risks*, 9(1). doi:<https://doi.org/10.3390/risks9010002>

- Sheikh, U. A., Asad, M., & Mukhtar, U. (2020). Modelling asymmetric effect of foreign direct investment inflows, carbon emission and economic growth on energy consumption of South Asian region: A symmetrical and asymmetrical panel autoregressive distributive lag model approach. *Accountancy Business and the Public Interest*, 19, 193-221.
- Sheikh, U. A., Asad, M., Ahmed, Z., & Mukhtar, U. (2020). Asymmetrical relationship between oil prices, gold prices, exchange rate, and stock prices during global financial crisis 2008: Evidence from Pakistan. *Cogent Economics & Finance*, 8(1), 1-20. doi:<https://doi.org/10.1080/23322039.2020.1757802>
- Shirokova, G., Bogatyreva, K., Beliaeva, T., & Puffer, S. (2016). Entrepreneurial orientation and firm performance in different environmental settings: contingency and configurational approaches. *Journal of Small Business and Enterprise Development*, 23(3), 703-727. doi:10.1108/JSBED-09-2015-0132
- Sindakis, S., & Aggarwal, S. (2022). The impact of COVID-19 pandemic on entrepreneurship: Examining the cases of Egypt, Saudi Arabia, and the United Arab Emirates. *Advanced Strategies in Entrepreneurship, Education and Ecology*, 149-162. doi:<https://doi.org/10.1108/978-1-80071-517-220221009>
- Snowdon, B., & Stonehouse, G. (2006). Competitiveness in a globalised world: Micheal porter on the microeconomic foundations of the competitiveness of nations, regions and firms. *Journal of International Business Studies*, 37(2), 163-175.
- Soininen, J. (2013). Entrepreneurial orientation in small and medium-sized enterprises during economic crisis. *Doctoral Dissertation*. Acta Universitatis Lappeenrantaensis.
- Steinbach, A. L., Holcomb, T. R., Holmes, R. M., Devers, C. E., & Cannella, A. A. (2017). Top management team incentive heterogeneity, strategic investment behavior, and performance: A contingency theory of incentive alignment. *Strategic Management Journal*, 8, 1701-1720. doi:10.1002/smj.2628
- Stephanie, P., Barbat, V., Pons, F., & Zins, M. (2019). Impact of responsive and proactive market orientation on SME performance: The moderating role of economic crisis perception. *Canadian Journal of Administrative Sciences*, 36(4), 459-472. doi: <https://doi.org/10.1002/cjas.1514>
- Sulaiman, M. A. (2025). Green product innovation as a mediator between green market orientation and sustainable performance of SMEs. *Sustainability*, 17(4), 1628. doi:<https://doi.org/10.3390/su17041628>
- Sulaiman, M. A., & Asad, M. (2023). Organizational learning, innovation, organizational structure and performance: Evidence from Oman. *ISPIM Conference Proceedings* (pp. 1-17). Ljubljana: ISPIM.
- Sulaiman, M. A., Asad, M., Awain, A. M., Asif, M. U., & Shanfari, K. S. (2024). Entrepreneurial marketing and performance: Contingent role of market turbulence. *Discover Sustainability*, 5, 1-20. doi:<https://doi.org/10.1007/s43621-024-00710-8>

- Ta'Amnha, M. A., Alsoud, M., Asad, M., Magableh, I. K., & Riyadh, H. A. (2024). Moderating role of technological turbulence between green product innovation, green process innovation and performance of SMEs. *Discover Sustainability*, 5, 1-16. doi:<https://doi.org/10.1007/s43621-024-00522-w>
- Ta'Amnha, M. A., Magableh, I. K., Asad, M., & Al-Qudah, S. (2023). Open innovation: The missing link between synergetic effect of entrepreneurial orientation and knowledge management over product innovation performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(4), 1-9. doi:<https://doi.org/10.1016/j.joitmc.2023.100147>
- Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics: International edition. Pearson2012 .
- Tasavori, M., Zaefarian, R., & Eng, T.-Y. (2018). Internal social capital and international firm performance in emerging market family firms: The mediating role of participative governance. *International Small Business Journal: Researching Entrepreneurship*, 36(8), 887-910. doi:<https://doi.org/10.1177/0266242618773145>
- Telecommunications and Digital Government Regulatory Authority. (2022, September 1). *Small and Medium Enterprises (SMEs)*. Retrieved from TARA: <https://u.ae/en/information-and-services/business/small-and-medium-enterprises/small-and-medium-enterprises>
- Thomas, J., & Terry, J. P. (2022). Containing COVID-19 risk in the UAE: Mass quarantine, mental health, and implications for crisis management. *Risk, Hazards, and Crisis in Public Policy*, 13(1), 9-27. doi:<https://doi.org/10.1002/rhc3.12237>
- TradeArabia. (2023, January 31). *60% of SMEs in the UAE 'posted lower net' during Covid times*. Retrieved from ZAWTA: <https://www.zawya.com/en/smes/planning/60-of-smes-in-the-uae-posted-lower-net-during-covid-times-p336jres>
- Tsai, C.-A., & Liao, M.-K. (2016). Examining Firms' Strategies for Competitive Advantages through Resource-based View and Dynamic Capability View under different environments. *Management Review*, 35(1), 47–72.
- Ullah, Z., Otero, S. Á., Sulaiman, M. A., Sial, M. S., Ahmad, N., Scholz, M., & Omhand, K. (2021). Achieving organizational social sustainability through electronic performance appraisal systems: The moderating Influence of transformational leadership. *sustainability*, 13(10), 1-14. doi:0.3390/su13105611
- Ullah, Z., Sulaiman, M. A., Ali, S. B., Ahmad, N., Scholz, M., & Heesup, H. (2021). The effect of work safety on organizational social sustainability Improvement in the healthcare sector: The case of a public sector hospital in Pakistan. *International Journal of Environmental Research and Public Health*, 18(12), 1-18. doi:10.3390/ijerph18126672

- Vasilev, V. (2020). From a crisis of confidence to effective crisis management in the public administration. *Knowledge - International Journal*, 43(1), 229-232.
- Victor, S., ul Haq, M. A., Sankar, J. P., Akram, F., & Asad, M. (2021). Paradigm shift of promotional strategy from celebrity to social CEO. *2021 International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 1016-1023). Zallaq: IEEE. doi:10.1109/DASA53625.2021.9682256
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of partial least squares* (Vol. 201). Berlin: Springer.
- Vlados, C., & Chatzinikolaou, D. (2020). Crisis, institutional innovation and change management: Thoughts from the Greek case. *Journal of Economics and Political Economy*, 6(1), 58-77.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180. doi: <https://doi.org/10.1002/smj.4250050207>
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314. doi:10.1002/smj.360
- Wold, H. (1982). Soft modelling: The basic design and some extensions. *Systems Under Indirect Observation, Part II*, 36-37.
- Xie, Z., Qalati, S. A., Limón, M. L., Sulaiman, M. A., & Qureshi, N. A. (2023). Understanding factors influencing healthcare workers' intention towards the COVID-19 vaccine. *PLOS ONE*, 18(7), e0286794. doi:[doi.org/10.1371/journal.pone.0286794](https://doi.org/10.1371/journal.pone.0286794)
- Zafar, Z., Wenyan, L., Sulaiman, M. A., Siddiqui, K. A., & Qalati, S. A. (2022). Social entrepreneurship orientation and enterprise fortune: An Intermediary role of social performance. *Frontiers in Psychology*, 12, 1-17. doi:10.3389/fpsyg.2021.755080
- Zaher, W. A., Ahamed, F., Ganesan, S., Warren, K., & Koshy, A. (2021). COVID-19 crisis management: Lessons from the United Arab Emirates leaders. *Frontier Public Health*.
- Zahid, H., Ali, S., Danish, M., & Sulaiman, M. A. (2022). Factors affecting consumers intentions to purchase dairy products in Pakistan: A cognitive affective-attitude approach. *Journal of International Food & Agribusiness Marketing*, 1-26. doi:<https://doi.org/10.1080/08974438.2022.2125919>
- Zahoor, N., & Gerged, A. M. (2021). Relational capital, environmental knowledge integration, and environmental performance of small and medium enterprises in emerging markets. *Business Strategy and the Environment*, 30(8), 3789-3803. doi:<https://doi.org/10.1002/bse.2840>

- Zahra, K., Majeed, K., Mahmood, A., & Asad, M. (2012). Impact assessment of community participation in solid waste management projects in selected areas of Faisalabad city. *Journal of Urban Planning and Development*, 138(4), 319-327. doi:10.1061/(ASCE)UP.1943-5444.0000127
- Zakaria, N., Sehgal, R., Watson, A., & Kamarudin, K. A. (2022). Staying afloat? Using a reflective cycle approach to examine the effects of crisis on the business resilience of SMEs during COVID-19. *Journal of General Management*. doi:<https://doi.org/10.1177/03063070221088371>
- Zhao, X., John G. Lynch, J., & Chen, Q. (2010). Reconsidering baron and kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206. doi:<https://doi.org/10.1086/651257>
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods*. Cengage Learning. South-Western: Erin Joyner.



## **APPENDICES**

### **Appendix 1**

#### **Questionnaire**

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5. This section aims to determine the possible effect of entrepreneurial orientation, market orientation, and learning orientation on the performance of SMEs in UAE. The following statements indicate the effect of strategic orientation on the performance of SMEs. Please tick to indicate your agreement on each statement.

#### **DEMOGRAPHIC INFORMATION**

Please tick (√) in the box relevant to you.

##### **A. Gender**

Male

Female

##### **B. Age**

Below 30

30-40

41-50

51-60

61and above

##### **C. What is your education level?**

Matric

Intermediate

Bachelor's

Masters

##### **D. You are working in the enterprise as?**

Owner

Manager

CEO

Director

##### **E. How long has your firm been established?**

Less than 5

5-10 years

11-15 years

16-20 years

21 and above

**F. How many employees does your firm hire?**

Fewer than 5

5-20

21-50

51-100

100 - 200

more than 200

**Performance of SMEs**

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

| No. | Performance of service sector SMEs                  | 1 | 2 | 3 | 4 | 5 |
|-----|---|---|---|---|---|---|
| 1   | The income (net profit) of our firm has increased.  |   |   |   |   |   |
| 2   | The number of items sold increased.                 |   |   |   |   |   |
| 3   | Business and domestic expenses are easily settled.  |   |   |   |   |   |
| 4   | The output of our firm has increased.               |   |   |   |   |   |
| 5   | Customers' output demand is met (improved service). |   |   |   |   |   |
| 6   | Investment of our firm has increased.               |   |   |   |   |   |
| 7   | Our firm has bought new machine/equipment.          |   |   |   |   |   |
| 8   | Total Business worth has decreased.                 |   |   |   |   |   |
| 9   | Our firm has new full-time staff.                   |   |   |   |   |   |

## Social Capital

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

| No. | Items  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1   | In our firm, all divisions recognize that we need each other to accomplish our objectives.   |   |   |   |   |   |
| 2   | In our firm, salespeople would be just as effective without working with other divisions.  |   |   |   |   |   |
| 3   | By working with salespeople in our firm, our product division gets access to resources and product ideas.                              |   |   |   |   |   |
| 4   | Our firm knows our suppliers in persons.   |   |   |   |   |   |
| 5   | Our firm maintains a close social relationship with international buyers.  |   |   |   |   |   |
| 6   | The exchange of information among our firm' s global contacts usually has similar content.   |   |   |   |   |   |
| 7   | The global contacts of our firm, with which we maintain frequent relationships, in general, know each other.                           |   |   |   |   |   |
| 8   | The global contacts of our firm from which we receive advice or information for making important decisions have a strong relationship. |   |   |   |   |   |
| 9   | Suppliers of our firm always keep their promises to us.  |   |   |   |   |   |
| 10  | Our firm is characterized by high reciprocity.   |   |   |   |   |   |
| 11  | Our firm is characterized by mutual trust among the colleagues at multiple levels.   |   |   |   |   |   |
| 12  | Our staff share organization vision with each other.   |   |   |   |   |   |
| 13  | There is a good understanding among our firm's global partners.  |   |   |   |   |   |
| 14  | Our firm's strategic alliance is about mutual respect.   |   |   |   |   |   |
| 15  | Our firm's strategic alliance is characterized by personal friendship.   |   |   |   |   |   |
| 16  | Our firm's strategic alliance is characterized by personal friendship among the top managers.  |   |   |   |   |   |

|    |   |  |  |  |  |  |
|----|---|--|--|--|--|--|
| 17 | Our firm's strategic alliance is characterized by a cooperative attitude. |  |  |  |  |  |
| 18 | Our staff are good at dealing with customers.                             |  |  |  |  |  |
| 19 | Our divisions in our firm have effective communication channels.          |  |  |  |  |  |
| 20 | To exchange different amount of information is our firm's typical issue.  |  |  |  |  |  |
| 21 | Our staff's success is our business success.                              |  |  |  |  |  |
| 22 | This business deserves loyalty from all staffs                            |  |  |  |  |  |
| 23 | Our staff share a common understanding about the needs of the customers.  |  |  |  |  |  |
| 24 | Our staff have a common understanding about global market trends.         |  |  |  |  |  |
| 25 | Our divisions in our firm understand each other's needs and priorities.   |  |  |  |  |  |

**Crisis Management Readiness** (Carmeli & Schaubroeck, 2008)

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

| No. | Items  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1   | My firm is prepared for different types of crises.                                     |   |   |   |   |   |
| 2   | The firm's preparation scope to cope with a crisis is good.                            |   |   |   |   |   |
| 3   | My firm knows which type of crisis it will be able to cope with without severe damage. |   |   |   |   |   |
| 4   | My firm has good knowledge regarding the different stages of a crisis.                 |   |   |   |   |   |
| 5   | My firm knows what to do at every possible stage of a crisis.                          |   |   |   |   |   |

|    |  |  |  |  |  |  |
|----|--|--|--|--|--|--|
| 6  | In a crisis, my firm knows when it is right to be reactive or proactive.                         |  |  |  |  |  |
| 7  | My firm has high flexibility to implement fast decision.   |  |  |  |  |  |
| 8  | My firm has high flexibility to react fast to crisis once it is diagnosed.                       |  |  |  |  |  |
| 9  | My firm would know how to diagnose the causes of a crisis.                                       |  |  |  |  |  |
| 10 | My firm would know what resources and quantities to allocate to successfully cope with a crisis. |  |  |  |  |  |
| 11 | My firm is good at catching early warning signals of a potential crisis.                         |  |  |  |  |  |
| 12 | My firm closely monitors internal and external business environments from time to time.          |  |  |  |  |  |
| 13 | My firm is good at making an insightful sense of the business environment trend.                 |  |  |  |  |  |
| 14 | My firm sees that crisis management plans are important.   |  |  |  |  |  |
| 15 | My firm thinks that it is important for us to have as crisis management plan.                    |  |  |  |  |  |

### **Leadership Behavior**

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

| No. | Items  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1   | Our firm assesses global opportunities, challenges, risks and competition in our business. |   |   |   |   |   |

|    |  |  |  |  |  |  |
|----|--|--|--|--|--|--|
| 2  | Our firm analyses economic, political, social, and cultural factors that impact our business.                                  |  |  |  |  |  |
| 3  | Our firm solicits information from business units outside our home country.  |  |  |  |  |  |
| 4  | Our firm analyses multiple opinions to take care of business issues.   |  |  |  |  |  |
| 5  | Our firm uses manufacturing, marketing, and submission techniques outside our hometown.  |  |  |  |  |  |
| 6  | Our firm combines supplier systems through different countries.  |  |  |  |  |  |
| 7  | Our firm discusses details and decision making with professionals in different areas of the world.                             |  |  |  |  |  |
| 8  | Our firm develops organizational values that represent diverse perspectives among cultures and countries.                      |  |  |  |  |  |
| 9  | Our firm delegates tasks assigned across cultures and countries.   |  |  |  |  |  |
| 10 | Our firm selects and promotes people from a global talent pool.  |  |  |  |  |  |
| 11 | Our firm engages in cross-cultural training and international staff development.   |  |  |  |  |  |
| 12 | Our firm respect, appreciates, and praises the accomplishments of employees.   |  |  |  |  |  |
| 13 | Our firm encourages coaches or mentors from different countries and cultures to work together to achieve goals and objectives. |  |  |  |  |  |

|    |  |  |  |  |  |  |
|----|--|--|--|--|--|--|
| 14 | Our firm seeks the views of stakeholders from different countries and cultures.  |  |  |  |  |  |
| 15 | Our firm responds to differences in business practices, cultures, or country environments.                                 |  |  |  |  |  |
| 16 | Our firm participates in cross-cultural meetings, brainstorming sessions, and other global information sharing activities. |  |  |  |  |  |
| 17 | Our firm works with representatives of political, social, cultural or civic institutions in other countries.               |  |  |  |  |  |
| 18 | Our firm use networks across countries and cultures to achieve business objectives.  |  |  |  |  |  |
| 19 | Our firm develops partnerships, alliances or ventures with companies in other countries.                                   |  |  |  |  |  |