TECHNOLOGY, ORGANISATION AND ENVIRONMENT FACTORS AND SMEs PERFORMANCE IN DUBAI AND ABU DHABI

NASSER KHALFAN HUMAID BELHOUL ALDARMAKI

SULTAN IDRIS EDUCATION UNIVERSITY

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ABSTRACT

The aim of this study is to examine the effects of technology, organization and environment (TOE) factors on SMEs' performance and the mediating role of Activity-Based Costing (ABC) implementation critical success factors on the relationships between TOE factors and SMEs performance. The relationship between these variables is proposed based on Resource-Based View (RBV) Theory and TOE framework. Based on survey method through the use of questionnaires, a total of 274 responses were received from owners/managers of SMEs in Dubai and Abu Dhabi. The Partial Least Squares Method (PLS) algorithm and the bootstrapping technique were used to test the study's hypotheses. The overall findings signified positive effects of technological (β= 0.257, t= 5.393) and organizational (β= 0.520, t = 5.326) factors on SMEs' performance. However, environmental factor (β= -0.016, t = 0.194) is not found to be a significant driver to promote SMEs performance. Furthermore, ABC implementation critical success factors (β=0.211, t=3.897) plays a crucial role in enhancing the performance of SMEs. Findings of the study also revealed positive effects of technological (β = 0.162, t = 2.601), organizational (β=0.372, t = 3.370) and environmental (β=0.300, t= 2.635) factors on ABC implementation critical success factors. In addition, ABC implementation critical success factors were found to mediate the relationships between technological (β = 0.034, t = 1.969), organizational (β = 0.079, t = 2.854) and environmental (β = 0.063, t = 1.972) factors and SMEs performance. Going by these results, it can be asserted that technological and organizational resources constitute the basis for firm competitive advantage and enhanced performance. Most importantly, the implementation of ABC critical success factors is found to be a crucial mechanism through which TOE factors can enhance SMEs performance. The implications of this study suggested that the owners/managers of SMEs in the UAE should ensure optimal utilization of TOE factors and as well as ABC implementation critical success factors to enhance performance among SMEs.

FAKTOR TEKNOLOGI, ORGANISASI DAN PERSEKITARAN DAN PRESTASI PERUSAHAAN KECIL DAN SEDERHANA (PKS) DI DUBAI DAN ABU DHABI

ABSTRAK

Kajian ini bertujuan memeriksa kesan faktor teknologi, organisasi dan persekitaran (TOE) terhadap prestasi PKS serta peranan faktor kejayaan kritikal pelaksanaan sistem Pengekosan Berasaskan Aktiviti (ABC) dalam memediasi hubungan antara faktor TOE dan prestasi PKS. Hubungan antara kesemua pembolehubah adalah didasari oleh Teori Resource-Based View (RBV) dan kerangka TOE. Berdasarkan kaedah tinjauan melalui penggunaan soal selidik, 274 maklum balas diterima daripada pemilik/pengurus PKS di Dubai dan Abu Dhabi. Kaedah Pemodelan Kuasa Dua Terkecil Separa (PLS) dan teknik bootstrapping digunakan dalam pengujian hipotesis kajian. Dapatan kajian mendapati faktor teknologi (β= 0.257, t= 5.393) dan organisasi (β= 0.520, t = 5.326) mempunyai kesan positif yang signifikan terhadap prestasi PKS. Walau bagaimanapun, faktor persekitaran (β= -0.016, t = 0.194) didapati tidak mempunyai kesan signifikan terhadap prestasi PKS. Faktor kejayaan kritikal pelaksanaan sistem ABC (β=0.211, t=3.897) juga didapati memainkan peranan penting dalam meningkatkan prestasi PKS. Dapatan kajian juga menunjukkan kesan positif faktor teknologi (β = 0.162, t = 2.601), organisasi (β=0.372, t = 3.370) dan persekitaran (β=0.300, t= 2.635) terhadap faktor kejayaan kritikal pelaksanaan sistem ABC. Selain itu, faktor kejayaan kritikal pelaksanaan sistem ABC didapati memediasi hubungan antara faktor teknologi (β = 0.034, t = 1.969), organisasi (β = 0.079, t = 2.854) dan persekitaran (β = 0.063, t = 1.972) dan prestasi PKS. Berdasarkan dapatan kajian, dapat disimpulkan bahawa faktor teknologi dan organisasi mampu memberikan kelebihan daya saing dan meningkatkan prestasi syarikat. Selain itu, faktor kejayaan kritikal pelaksanaan sistem ABC didapati merupakan satu mekanisme penting yang mendorong faktor TOE dalam meningkatkan prestasi PKS. Implikasi kajian ini mencadangkan bahawa pemilik/pengurus PKS di UAE perlu memastikan penggunaan faktor TOE dan kejayaan kritikal pelaksanaan sistem ABC yang optimum dalam memacu peningkatan prestasi PKS.

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LIST OF ABBREVIATION

ABC	Activity-Based Costing System
AED	United Arab Emirates Dirham
AVE	Average Varience Extracted
CR	Composite Reliability
DOI	Diffusion of Innovation
EF	Environmental Factor
MAC	Management Accounting and Controls
MAI	Management Accounting Innovations
OF	Organizational Factor
PERF	Performance
PLS	Partial Least Squares
RBV	Resource-Based View
RKB	Knowledge-Based View
SEM	Structural Equation Modeling
SMBs	Small and Medium-scale Businesses
SMEs	Small and Medium-scale Enterprises
TAM	Technology Acceptance Model
TF	Technological Factor
TOE	Technological, Organizational, Environmental
UAE	United Arab Emirates

UTAUT	Unified Theory of Acceptance and Use of Technology
VIF	Variance inflation Factor

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CHAPTER 1

INTRODUCTION

1.1 Background to the Study

The performance of Small and Medium-scale Enterprises (SMEs) has attracted the attention of several studies recently because it is considered a tool for enhancing economy, a springboard for sustaining economic development, and a major provider of employment (Abdelrahman, Abdullah, & Abas, 2017; Bakhsh, Mahmood, & Chaudhry, 2019; Kongolo, 2010; Kuntchev et al., 2013). In each country, the government alone cannot bring about economic development and provide jobs for all. Therefore, businesses established by individuals and corporate entities aid governments in the provision of jobs to people and contribute to the economic growth and development of a country. Thus, the impact of Small and Medium-scale Enterprises (SMEs) cannot be globally underestimated (Wang, 2016) in complementing governmental efforts in

enhancing economic development especially when the performance of SMEs is appreciable.

SME is a household concept and has been defined differently by researchers because there is no universally agreed definition (AlSharji, Ahmad, & Bakar, 2018; Ramdani, Chevers, & Williams, 2013). Its definitions focus mainly on the economic, social, and cultural characteristics of each country and are often dependent on turnover, capital assets, size, labor skills, ownership, or a firm's legal status (Chege & Wang, 2020; Cheng, Kadir, & Bohari, 2014). The general principles of SME definition comprise staff numbers, sales volume, and the level of investment. For instance, the European Commission defines SMEs as firms having employees ranging from 10–49 and medium-sized businesses as those having 50–250 employees (Katua, 2014). In the global economy, the operations of SMEs occupy a central position in the economic landscape, particularly for countries that are developing (Quartey et al., 2017).

In the context of the UAE, the framework for defining SMEs is derived from Cabinet Resolution No. 22 of 2016 which applies several employees, gross assets, and annual sales turnover to classify small businesses into categories (AlSharji et al., 2018). Arising from this, small businesses in UAE refer to firms that have less than AED 2m as an annual turnover and a maximum of 50 full-time employees, whereas medium-sized firms refer to any firm that has an annual turnover ranging from AED 2 to 200m and 50-200 employees on a full-time basis (AlSharji et al., 2018). However, the two Emirates comprising Dubai and Abu Dhabi adopt their own definitions of SME. The definition of SME in the context of Abu Dhabi was issued by a decree on 30 June 2013 which defines micro and SMEs by employees number in each firm, where a firm with

less than 5 employees is considered as micro; between 5 and 19 employees are small; between 20 and 49 are medium; and more than 50 are large (OECD, 2016). The SME sector in the country has an estimated number of 350,000 enterprises.

Globally, over 95 percent of enterprises are SMEs and they form about 60 percent of the private sector global employment (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2011; Chege & Wang, 2020; Kumar, 2017; Nair & Tan, 2018; Quartey et al., 2017). Specifically, Azudin and Mansor (2018) argue that SMEs constitute 99 percent of the global business population. In UAE, small businesses constitute about 95 percent of all private businesses, and the SME sector alone provides employment for about 86 percent of the active workforce in the country (Baby & Joseph, 2016). Based on estimations, Dubai accounts for about 45 percent of the entire SMEs in UAE, Abu Dhabi has about 32 percent of it, whereas Sharjah has about 16 percent. Thus, SMEs are an essential mechanism for driving economic growth and job creation (Wang, 2016).

SMEs may not have an appreciable impact on the economy of a country unless they are performing well. SME performance, therefore, refers to the consistent achievement of the objectives of a firm effectively and efficiently (Abdelrahman et al., 2017; Kuntchev et al., 2013). Performance measures the position of a firm in the marketplace and its ability to meet the needs and aspirations of its stakeholders (Lo et al., 2016). This indicates that performance is the extent to which the organization's operation achieves its intended objectives by satisfying the needs of the customers (Lo et al., 2016; Slack, Chambers, & Johnston, 2010). Besides, performance assists in assessing the effectiveness and efficiency of production and services that help an entity in its profit realization (Abdelrahman et al., 2017; Melnyk et al., 2014). In short, the

performance of management of an organization is evaluated through the realization and achievement of the goals and objectives of that organization (Alnajjar, 2017).

Based on the relevance of SMEs, different measures are taken by UAE to maximizing the advantages and opportunities attributable to SMEs. To encourage and support the growth and development of the SME sector in UAE, the federal government came up with a new Law called SME Law in 2014 and the law seeks to give support to fully owned SMEs by the nationals of UAE (OECD, 2016). Arising from this, the UAE creates a financing opportunity for SMEs through Emirates Development Bank (EDB). EDB was established with a capital base of AED 10 billion to promote the economic growth (OECD, 2016). The SME Law requires the EDB to ensure that not less than 10 percent of its financing annually is apportioned to SMEs (OECD, 2016). Similarly, different initiatives were deployed by Dubai as growth stimulus packages for SMEs in 2018, and these packages were implemented by different agencies (Government of Dubai, 2018). The essence of the packages is to attract SMEs to support faster growth. For example, Dubai Chamber downward revised the fees for doing business, the Department of Finance increased the SMEs procurement quota from 10 percent to 20 percent , Dubai Municipality reduced the fee collected from sales of hotel rooms from 10 percent to 7 percent , and Dubai Economy exempted firms from penalties for late renewal of licenses (Government of Dubai, 2018).

Despite all these measures put in place in UAE, the performance of SMEs is not up to the expectation as the SME sector is still weak (AlSharji et al., 2018; Baby & Joseph, 2016). Evidence from the literature has indicated that technology, organization, environment and adoption of Management Accounting Innovations (MAIs) such as

Activity Based Costing (ABC) system can make or mar the performance of SMEs (Ahmad, Teng, & Zabri, 2017; AlSharji et al., 2018; Chege & Wang, 2020; Quartey et al., 2017; Wang, 2016). From the perspective of technology, it can be seen as one of the major components of providing the final users with essential information through different technologies, applications, and software (Stjepić, Sušac, & Vugec, 2019). Technology can be viewed from three perspectives comprising any technology that is either being applied by a firm or that is available and is identified to be possibly beneficial, but is not yet being applied by an organization (AlSharji et al., 2018). In the context of SMEs, relative advantage, IT infrastructure, complexity, security, and compatibility are regarded as the technological factors that can affect the performance of SMEs (AlSharji et al., 2018). Although digitalisation provides new opportunities for SMEs to attain a global market, a large number of SMEs have not yet embraced fully the advantages accrual from technological transition. As indicated in the literature, SMEs are lagging behind in embracing digital technologies, thus only about 2% of SMEs take advantage of technology innovation (Chege & Wang, 2020).

Furthermore, it has been argued in the literature that the nature of organization can influence the performance of SMEs. Based on the organizational context, absorptive capacity, owner's support, employees' training, and organizational resources are considered factors influencing the performance of SMEs (AlSharji et al., 2018). Moreover, the business environment in contemporary society is becoming competitive, whereas the business entity is becoming more dynamic and aggressive in recognizing strategies that will lead to profit return. The business environment can be described as the surroundings in which a business performs its operation, which is compounding, ever-changing, and competitive (Abdelrahman et al., 2017; Ishengoma & Kappel,

2011). The environmental factor is considered a catalyst for the performance of SMEs. Environmental factors are outside the control of SMEs (AlSharji et al., 2018) and they include government support and competitive pressure.

Also, it has been suggested that the application of MAIs, particularly the ABC system, will go a long way in preventing the failure of SMEs. They are the most essential practices in any organization which intends to stay and remain sustainable and competitive (Bakhsh et al., 2019). MAIs have been evolving because of continuous changes in a business environment and technology (Ahmad et al., 2017). Because of the shortcomings of a traditional costing system, ABC came up as part of MAIs designed to cater for the contemporary needs of an organization. According to Rozlan and Hashim (2018), the most essential factor for the failure of SMEs is their inability to practice adequate business management practices.

Arising from this fore-discussion, this study aims at examining the factors affecting the performance of SMEs in UAE. The research was carried out in Dubai and Abu Dhabi due to the presence of numerous SMEs in these locations. The study encompassed a diverse range of SME organisations operating in different industries within the context of Dubai and Abu Dhabi. The reason for the choice of SMEs sectors is because it is an engine of every nation's economic development and creates employment opportunities for more than 86 percent of the entire workforce in the country's private sector. It also accounts for more than 94 percent of all enterprises functioning in the country and also account for over 95 percent of all business establishments in Dubai, thereby providing employment for 42 percent of the employees and contributing about 40 percent to the GDP of Dubai alone.

Three factors comprising technology, organization, and environment were examined. The study made use of the adoption of MAIs focusing specifically on ABC critical success factors to mediate the relationships between the three independent variables (technology, organization, and environment) and the performance of SMEs in UAE. Also, the study employed the Technology-Organization-Environment (TOE) and the Resource-Based View theories in providing the theoretical basis for the study.

A research gap related to the influence of MAIs on the performance of SMEs exists. Many studies on SMEs particularly in the UAE context (Ahmad, Ahmad, & Bakar, 2018; Al-Ansari, Altalib, & Sardoh, 2013; Alnajjar, 2017; Behery, Jabeen, & Parakandi, 2014; Gupta et al., 2018; Nakos, Dimitratos, & Elbanna, 2019; Nuseir, 2018) have focused on other areas, such as social media adoption, digital media innovation, entrepreneurial success factors and alliances in the international market.

This study aims to fill the gap in the literature by examining factors (technological, organizational, and environmental) influencing the performance of SMEs performance in Dubai and Abu Dhabi. Specifically, it examines the ABC implementation critical success factors as the mediator of the relationships between the independent variables and the dependent variable. Based on the literature review conducted in the field, it was discovered that very few studies have holistically examined SMEs businesses in Dubai and Abu Dhabi in the past. The current study involved technology because scientific literature and business practices indicate that the adoption of technological innovations enhances the performance of enterprises (Stjepić et al., 2019). As part of the technological factors, the study focuses on IT infrastructure, relative advantages, compatibility of the technology, security, and complexity of the technology. Researchers contend that companies' decisions to adopt

specific innovations are positively and significantly influenced by the relative advantage of technology (AlSharji et al., 2018). An important factor in determining the use of innovation is compatibility between technological innovation and an organization's culture and value system, as well as its operational activity, and other research have shown that this is also true for SMEs. Thus, the application of technology adoption in the context of SMEs tends to boost performance of SMEs.

Furthermore, organizational factors such as absorption capacity, owners' support, organizational resources, and employment and training have been suggested to be essential for the actualization of performance of organizations in which SMEs are not exemption (AlSharji et al., 2018). Thus, the organizational ability to provide necessary quantitative and qualitative support will go a long way in enhancing the performance of SMEs. Moreover, literature has indicated that the environment has an important impact on the success of business and is a great determinant of business performance. The environment refers to all those factors outside the control of an organization (AlSharji et al., 2018), and it comprises government support and competitive pressure. One specific but essential factor is competitive intensity, or the threat of losing a competitive advantage (Zhu, Kraemer, & Xu, 2003). Competitive pressure refers to the extent to which rivalry occurs between organizations in the same industry (AlSharji et al., 2018).

Also, MAIs is considered essential for the attainment of organizational performance as the literature suggests that a direct relationship exists between MAIs and the performance of organizations (Bakhsh et al., 2019). Similarly, literature has shown that MAIs particularly the ABC implementation critical success factors is

influenced by technology, organizational and environmental factors. Concerning the relationship between the ABC and performance, scholars argue that after the introduction of MAIs by SMEs, business performance improves dramatically (Bakhsh et al., 2019). The ABC is one of the MAIs which is one of the techniques that enables the construction of a more accurate picture of how actions carried out in the manufacturing of goods or services (Ahmad et al., 2017).

As a result, this implies a change from a purely financial approach to a new system perspective made up of financial and non-financial information and functions as a competitive mechanism to help an organization maintain its position in the competitive market (Ahmad et al., 2017). However, studies on ABC implementation critical success factors within the SMEs sector are very few. Besides, very limited studies have examined the role of ABC implementation critical success factors between technology, organizational, and environmental factors and SMEs despite its importance, particularly in this setting. Therefore, this study aims to examine the impact of technological, organizational, and environmental factors on SMEs performance, whereas ABC implementation critical success factors serves as the mediating variable between the independent and dependent variables.

1.2 Statement of the Problem

SMEs act as pillars and foundations for the growing economy (Maziriri & Chivandi, 2020; Md Isa et al., 2020; Nakku et al., 2020). However, weak networking and connectivity present a difficulty for UAE in monitoring SME performance. The

businesses are not interconnected and strongly linked, which could offer support to emerging and new SMEs, hence, impeding the growth of SMEs as a whole. The lack of management skills exhibited by business owners is another factor that hinders the expansion of SMEs. A diverse skill set is needed to manage the operations and the workforce as businesses expand in size. Many managers are experts in one area, but they lack the necessary talents, such as skills of employees or owners are important in the development of small business (Gupta & Mirchandani, 2018; Jawabri, 2020; Nuseir & Aljumah, 2022), however, entrepreneurs typically lack such managerial skills to deal with a variety of difficulties among UAE SMEs. They struggle to develop novel plans of action to expand the company and improve organizational effectiveness.

To address the problem of SME's performance in UAE, the current study considered different types of factors which may have significant role to promote performance. The current study considered technological factor which is one of the most critical factor of success in the current era of technological revolution (Bi, Huang, & Wang, 2016; Yang et al., 2023). Although the number of previous studies considered technological factor in various types of businesses (Azarloo et al., 2017; Črešnar et al., 2023; Shahadat et al., 2023; Zhang & Fu, 2022), however in the UAE SME's industry, the discussion on technology factor is very rare. Therefore, the current study considered technological factors to promote SME performance in UAE and filled the important literature gap. Additionally, this study considered organizational factors which is also most critical in the performance of any business activity. Similar with the technological factor, organizational factor is also one of the important factor (Sekar, Viswanathan, & Sambasivan, 2018; Shahadat et al., 2023; Taherian, Feiz, & Heydarkhani, 2023; Zhai et al., 2018), which is discussed throughout different dimensions in various studies,

however the discussion on organizational factor by considering the SMEs of UAE is quite rare in the literature which motivated the current study to consider this factor to address the performance issues of SME's in UAE. In addition to this, environment is also another important factor (Abbas et al., 2019; Shahadat et al., 2023) which may influence SMEs performance and this factor is also rarely addressed in the context of SME's working in the environment of UAE. Hence, to address the critical problem in SME's performance of UAE, the current study considered technological, organizational and environmental factors to fill the literature gap which has unique contribution to extend the body of knowledge.

This study addressed the problem of SME's by considering the most important literature gap through the incorporation of ABC implementation critical success factors in the framework of the study. ABC implementation critical success factors is one of the most significant elements to promote performance by resolving several issues (Mahmood Albalaki, Abdullah, & Kamardin, 2019; Masadeh, 2023; Mazbayeva, Barysheva, & Saparbayeva, 2022). SMEs in Abu Dhabi and the UAE must prioritise ABC with an emphasis on critical success factors. This method allows for accurate allocation of costs, which in turn promotes the optimisation and efficiency of resources. When it comes to local and worldwide markets, SMEs can gain an advantage with ABC's improved decision-making capabilities. Cost reporting is brought into line with financial standards, ensuring regulatory compliance. Since ABC finds high-margin products and helps with strategic pricing, improved profitability is a direct result. To further bolster their position, SMEs have visibility into resource consumption and are aligned with strategic objectives. This allows for effective cost control and risk management. Further, ABC permits customer profitability analysis, which helps SMEs

target the most profitable market groups with their products and services. However, the ABC implementation critical success factors is quite rare in the previous studies particularly in the SME's working in Dubai and Abu Dhabi. Although it is observed that literature considered the ABC implementation critical success factors in various business activities along with different business industries, however the mediating role of ABC implementation critical success factors is not addressed by the previous studies. Particularly, the mediating role of ABC implementation critical success factors between technological factor and SME performance of UAE was not addressed. Similarly, the mediating role of ABC implementation critical success factors between organizational factor and SME performance in UAE was also not addressed in the literature. Likewise, none of the study addressed the mediating role of ABC implementation critical success factors between environmental factor and SME's performance in UAE. Therefore, the current study filled the important literature gap by considering the indirect role of ABC implementation critical success factors between technological factor, organizational factor, environmental factor, and SME performance in the context of Dubai and Abu Dhabi.

The current study addressed the theoretical gap in relation to the Resource-Based View (RBV). The capability of firms to create or acquire these resources affects their performance (Ramon-Jeronimo, Florez-Lopez, & Araujo-Pinzon, 2019). By considering the recommendations of RBV, the current study addressed the SMEs performance issue by highlighting the intangible resources. Intangible assets considered by the current study include organizational factors, technological factors, and environmental factors. These three types of factors have a significant role in contributing to the performance of SMEs in Dubai and Abu Dhabi. However, RBV has

not considered the significant role related to the ABC implementation critical success factors. Although several previous studies considered RBV in the context of various business activities and highlighted the important role of resources in performance (Gupta & Mirchandani, 2018; Ramon-Jeronimo et al., 2019; Rivard, Raymond, & Verreault, 2006; Safari & Saleh, 2020), however literature have not addressed the role of ABC implementation critical success factors. While resources play a substantial role in performance, their impact on performance is not solely direct; rather, resources also exert an indirect influence through various other factors. In the context of this study, to get maximum benefit from technological factors, organizational factor, and environmental factor the role of ABC implementation critical success factors is most critical which should also be included in the RBV.

Additionally, the current study also addressed the methodological gap. Prior research has also examined the impact of TOE on business performance. The connection between these parameters and the performance of business operations has been explored using conventional statistical tools and approaches. But this study addressed this relationship by considering the comparatively latest statistical technique which is based on Partial Least Square-Structural Equation Modeling (PLS-SEM). Although this technique is employed by the several previous studies carried out on SMEs by considering different variables (Amoah et al., 2021; Setyoko & Kurniasih, 2022; Srisusilawati et al., 2021; Wei-loon & Wulandari, 2023), however this technique was not employed in the literature by considering the indirect role of the ABC implementation critical success factors between technological, organizational and environmental factors and business performance of SME is working in Dubai and Abu Dhabi.

1.3 Research Objectives

The main objective of this study is to examine the factors influencing the performance of SMEs in UAE and the following specific objectives will help achieve the general objectives:

1. To examine the relationship between technological factor and SMEs performance in UAE.
2. To examine the relationship between organizational factor and SMEs performance in UAE.
3. To examine the relationship between environmental factor and SMEs performance in UAE.
4. To examine the relationship between ABC implementation critical success factors and SMEs performance in UAE.
5. To examine the relationship between technological factor and ABC implementation critical success factors.
6. To examine the relationship between organizational factor and ABC implementation critical success factors.
7. To examine the relationship between environmental factor and ABC implementation critical success factors.
8. To examine whether ABC implementation critical success factors mediates the relationship between technological factor and SMEs performance in UAE.
9. To examine whether ABC implementation critical success factors mediates the relationship between organizational factor and SMEs performance in UAE.

10. To examine whether ABC implementation critical success factors mediates the relationship between environmental factor and SMEs performance in UAE.

1.4 Research Questions

This study attempts to provide answers to the following research questions:

1. Is there a relationship between technological factor and SMEs performance in UAE?
2. Is there a relationship between organizational factor and SMEs performance in UAE?
3. Is there a relationship between environment factor and SMEs performance in UAE?
4. Is there a relationship between the ABC implementation critical success factors and SMEs performance in UAE?
5. Is there a relationship between technological factor and the ABC implementation critical success factors by SMEs in UAE?
6. Is there a relationship between the organizational factor and the ABC implementation critical success factors by SMEs in UAE?
7. Is there a relationship between environment factor and the ABC implementation critical success factors by SMEs in UAE?
8. Does the ABC implementation critical success factors mediate the relationships between technological factor and SMEs performance in UAE?

9. Does the ABC implementation critical success factors mediate the relationships between organizational factor and SMEs performance in UAE?
10. Does the ABC implementation critical success factors mediate the relationships between environmental factor and SMEs performance in UAE?

1.5 Research Hypotheses

Hypotheses of the study are as follows;

H_1: There is a positive relationship between technological factor and SMEs performance.

H_2: There is a positive relationship between organizational factor and SMEs performance.

H_3: There is a positive relationship between environmental factor and SMEs performance.

H_4: There is a positive relationship between the ABC implementation critical success factors and SMEs performance.

H_5: There is a positive relationship between technological factor and the ABC implementation critical success factors.

H_6: There is a positive relationship between organizational factor and the ABC implementation critical success factors.

H_7: There is a positive relationship between environmental factor and the ABC implementation critical success factors.

H_8: ABC implementation critical success factors mediates the relationship between technological factor and SME performance.

H_9: ABC implementation critical success factors mediates the relationship between organizational factor and SME performance.

H_{10}: ABC implementation critical success factors mediates the relationship between environmental factor and SME performance.

1.6 Theoretical Framework

This study is underpinned by Technological-Organizational-Environmental (TEO) Framework and the Resource-Based View (RBV) theory. The study used TOE framework based on the fact that the technological context, the organizational context, and the environmental context of the business organization are regarded as elements that influence business performance. The technological context comprises all technologies that are essential for an organization. This includes both existing technologies that are already in use in an organization and those that are available in the marketplace but are not currently in use (Baker, 2012). Also, technology is considered an instrument for organizational competitive advantage in the knowledge of economy. Similarly, the organizational context is all about the features of the organization, such as organizational readiness, top management support, and organizational structure which may affect the organizational performance. As for the environmental context, it entails those factors outside the organization in which the organization operates, such as the industry, competitors, and regulation or legal policies by the government which may also influence organizations in the adoption of

innovation in enhancing their performance (AlSharji et al., 2018). This framework has been used by several prior studies in relation to performance with the claim that it has a robust theoretical foundation and solid empirical evidence (Palacios-Marqués, Soto-Acosta, & Merigó, 2015; Soto-Acosta, Popa, & Palacios-Marqués, 2017).

As for the RBV theory, it postulates that firms would achieve competitive advantage through organizational distinct and inimitable approach to acquisition, development and effective deployment of physical, human, and organizational resources, such as technological innovation and system adoption (Acar & Polin, 2015; Barney, 1991). In this study, ABC implementation critical success factors is seen as an internal firm resource, strategic and sustainable competitive advantage, and a driver of organizational performance. In addition, internal organizational resources and technological competence are a depiction of knowledge, skills, creativity, and behaviors in which an organization can help build up its competitive advantage.

In this study, technology factor, organization factor and environmental factor are essential to the SMEs performance. These variables will help an organization in gaining knowledge, building skills, making a wise decision, and implementing a suitable system that will lead to better SMEs performance.

1.7 Conceptual Framework

In this study, three independent variables, one mediating variable, and one dependent variable are considered. The independent factors are technology factor, organization

factor and environmental factor (TOE). The dependent variable is SMEs performance, while the mediating variable is ABC implementation critical success factors. The conceptual framework of the study is shown in Figure 1.1.

Figure 1.1

Conceptual Framework

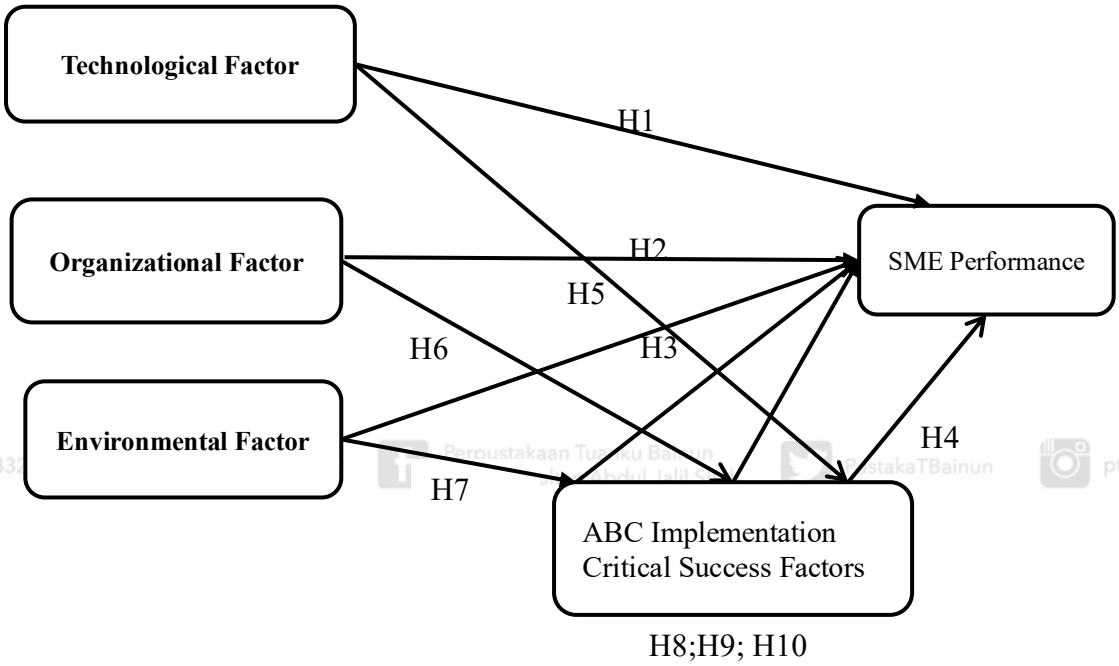

Figure 1.1 is premised on the assumption of TOE and RBV frameworks which postulate that the adoption of organizational technological adoption, effectiveness, and competitiveness is based on internal and external factors. Some elements of these factors then further served as organizational resources which help gain a competitive advantage over other competitors.

1.8 Significance of the Study

This study adds to the body of knowledge by addressing some concerns that span theoretical, contextual, practical, and methodological issues in the context of the study and problem statement. First and foremost, the study adds to the body of knowledge by expanding the body of literature on the performance of SMEs in the UAE, especially in Dubai and Abu Dhabi. Also, by using ABC implementation critical success factors implementation critical success factors as a mediator, the study added something new to the body of current knowledge. This concept has been rarely applied in the SMEs research context and management research, thus bridging the existing research gap in this area of study. Second, the study is underpinned by the RBV theory. RBV has not taken into account the importance of the function played by the ABC implementation's crucial success criteria. Although a number of earlier studies took into account RBV in the context of different business activities and emphasized the crucial role that resources play in performance, but literature has not yet addressed the fundamental success elements for ABC implementation. Even though they make a considerable contribution to performance, resources also have an indirect impact on it in addition to their direct impact. The importance of ABC implementation crucial success elements cannot be overstated in order to maximize the value of the resources. Therefore, in the context of this study, the role of ABC implementation essential success factors is most crucial and should also be included in the RBV in order to receive the greatest value from technology factors, organizational factors, and environmental factors. Hence, this study provided recommendations to extend the RBV by adding implementation of critical success factors to improve performance as an important resource of the business along with the other intangible resources.

The TOE framework has been scarcely adopted in studies of technological innovation and SMEs performance not because it is not applicable to the context, but because more attention is given to other prominent theories in management research. This, therefore, contributes to the already established theoretical framework in the area of technological innovation and SMEs performance. Thus, researchers and potential researchers will find the study significant. Last, this study will assist the SMEs owners to gain knowledge on the importance of ABC implementation critical success factors and its potential for business performance.

The TOE framework provides tangible advantages for regulators and SMEs owners in the UAE and Abu Dhabi. SMEs can simplify regulatory compliance processes and reduce the reporting load on owners by incorporating sophisticated technologies. Efficient organisational structures facilitate swift adjustment to legislative changes, hence assuring operational effectiveness in dynamic corporate situations. By actively addressing environmental considerations, SMEs are able to predict and tackle compliance challenges, promoting sustainability and conformity to regulations. The combination of these characteristics allows SMEs to utilise technology to ensure compliance, streamline organisational procedures, and keep aware of the changing business landscape. In essence, the TOE framework offers a methodical approach that enhances adherence to regulations and enhances overall business performance for both regulators and SME owners.

1.9 Scope of the Study

The primary focus of this study as implied by the general objectives is to investigate the mediating role of ABC implementation critical success factors in the relationships between technological factors, organizational factors, environmental factors, and SMEs performance in Dubai and Abu Dhabi because these two cities have the highest concentration of SMEs in the UAE. The coverage of the information collected is limited to registered SMEs in Dubai and Abu Dhabi. The results of the findings through statistical analyses are limited to data collected from the field of study.

1.10 Operational Definition of Key Terms

The following important concepts or terms are defined as appropriate in this study and are used in this investigation.

1.10.1 Small and Medium-sized Enterprises (SMEs)

Small and medium-sized enterprises (SMEs) are defined in this study as businesses with an annual turnover of less than AED 2 million and a maximum of 50 full-time employees, while medium-sized businesses are defined as businesses with an annual turnover of AED 2 million to 200 million and between 50 and 200 full-time employees. This definition is consistent with the one outlined in the Cabinet Resolution No. 22 of 2016.

1.10.2 Performance

For operational definitions, we will normally begin by first citing the definition from previous studies. For instance, Lo et al. (2016) define performance as an achievement of profit maximization objective and provision of employment opportunities for people. Lo et al. (2016) further classified performance into financial and non-financial performance. In this study, SMEs performance is conceptualized as an indicator that appraises how well the SMEs businesses achieved their objective which involves both financial and non-financial performance (Ho, 2008).

1.10.3 Technological Factor

According to Hansson (2015), technology refers to the adoption of information technology in the operation of SMEs to enhance their effectiveness, efficiency, and performance at large. Similarly, Rajaraman (2018) conceptualizes technology as the resources employed to acquire, save, organize, process, and distribute processed data that can be used in a specified application. In this study, the technological factor is described through complexity, compatibility and relative advantage which consider the promotion of business efficiency, enhances quick service to customers, access to the market information, better connectivity, user friendly applications and promotion of business performance. This definition is consistent with the definition of Chege et al. (2020) which considered technology through complexity, compatibility and relative advantage.

1.10.4 Organizational Factor

An organizational structure is a system that specifies how certain actions are directed to meet the goals of an organization, according to Lo et al. (2016). Rules, roles, and obligations may be a part of these activities. In this study, the organizational factor is described through management support, customer focus and employee orientation which include the use of new technologies, new ideas for process and products, promotion of innovative ideas by the employees, new solution of problems, tolerance on mistakes, promotion of good communication with customers and compensation to the employees based on their performance. This definition is consistent with Lo et al. (2016) which examined organizational factor from the context of management support, customer focus and employee orientation.

1.10.5 Environment Factor

According to Chege, Wang, and Suntu (2020), environment refers to the factors that are beyond the control of an organization and it comprises forces from the government and competitors. In this study, the environmental factor is described as government regulations, availability of infrastructure, innovative environment and competitive advantage to promote business activities. This definition is consistent with definition used by Chege et al. (2020).

1.10.6 ABC Implementation Critical Success Factors

According to Ahmad et al. (2017), ABC implementation critical success factors can be measured through data usage, support of top management and in the perceptive of employees. In this study, it is described as the competitive product cost, competitive operating cost to reduce the price, information of cost, resources provided by the owner, use of competitive strategies, understanding of ABC mechanism, training activities, ABC implementation critical success factors acceptance and suitability for the employees to promote performance.

1.11 Organization of Thesis Chapters

There will be five chapters in this course. The issue statement, research questions, goals, significance, scope, underlying theories, and structure of the thesis are highlighted in chapter one. The second chapter involves a literature review that highlights conceptual and theoretical frameworks and gaps in the literature. Specifically, it assessed previous studies in the aspect of SMEs, whereby a systematic review on each variable of this study was conducted. Additionally, it discusses how each of the independent and dependent variables in this study relate to one another while also evaluating how ABC adoption has a mediating effect on all of the variables.

Third chapter covers methodology which discusses the steps and procedures followed by the researcher before, during, and after the collection of data. It includes the research paradigm, the study design, the population, the sample, and the sampling

methodologies, as well as the methods for gathering data and analyzing that data. The chapter also covers how each variable's measurement is done.

The results and discussion are presented in the fourth chapter. In accordance with the stated goals and developed hypotheses, the chapter analyzes, interprets, and discusses the data. The final chapter is the conclusions and recommendations. It summarizes the entire study and provides the implications of the study as well as recommendations for future studies.

1.12 Summary of Chapter

The chapter provides an overview of the research topic and discusses how SMEs have been important to both the United Arab Emirates and the rest of the world. The chapter is divided into ten (10) sub-sections that include an introduction, a research statement of the problem, research objectives, research questions, and research hypotheses, as well as sections on the theoretical and conceptual frameworks, the significance of the study, the scope of the study, operational definitions of key terms, the way the study was organized, and a summary of the chapter. The subsequent chapter of this study will focus on the literature review, where relevant past studies are analyzed and criticized along with the hypotheses development and the theories that underpinned this study.