
Factors influencing survival of business ventures in an underdeveloped economy: the case of Yemen

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Abstract: This study presents an empirical investigation of the factors that influence the performance of small and medium enterprises (SMEs) in Yemen being an underdeveloped economy; with the help of primary data drawn from 394 enterprises in two cities of Yemen. The data collected is randomly split into two sub datasets (50% each), exploratory factor analysis is applied on the first sub dataset, and CFA and SEM tools are applied on the other sub set of data to test the relationship and effect across variables. The model presented in the study fits the data well in the Yemeni context, and exhibits the significance of legal factors, temporary factors, and managerial factors on the performance of SMEs; while, financial factors, infrastructure factors and marketing factors are found insignificant in affecting SMEs' performance. The findings of this study add to the scant literature pertaining to SMEs and their performance in least developed economies in the Middle East – Yemen in particular. Further, the proposed model would be of benefit to policy-makers, practitioners, development partners and SMEs owners and managers from perspectives of identifying the characteristics of a conducive business environment by measuring the determinants of the survival/failure of the business in such environment.

Keywords: small and medium enterprises; SMEs; enterprises; ventures; survival; performance; Yemen; underdeveloped economy.

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1 Introduction

Small and medium enterprises (SMEs) grew and expanded since the 1970s, employing around 60% of worldwide workforce (Aljazeera, 2010), around 40% of the workforce in India (Goyal, 2013), 66.7% of workforce in Europe (European Commission, 2011), and almost half of the American workforce (SBA, 2018). SMEs account for more than 90% of Asian businesses (Knight, 2015), 99.9% of all businesses in Europe while their large enterprise counterparts account only for 0.02% of businesses and employ 33.3% of workforce (European Commission, 2011).

The establishment and growth of new enterprises is always crucial for the transition of economies (Clague, 1992), which highlights their importance and contribution in both developed and developing countries (Toma et al., 2014; Acs et al., 2008; Naudé, 2010, 2013; Carree and Thurik, 2005; Stam and Van Stel, 2011). However, such growth is influenced by managerial competencies (Sidek and Mohamad, 2014), entrepreneurial competencies (Bin Mohamad and Sidek, 2013), adopting e-marketing, established competitive advantage (Sidek et al., 2020), and orientation towards undertaking entrepreneurship (Sidek et al. 2015, 2019).

Regardless of considering entrepreneurs as key drivers of the economy by governments, little has been done to support them. Most of the SMEs face challenges such as business support services, business registration, regulatory support and access to finance (Katrodia and Sibanda, 2018); infrastructure constraints, carrying disproportionate regulatory burdens or legal bottlenecks (Kshetri, 2011); accessing financial support and incentives, protecting their intellectual property (Okeke, 2014); and the culture that is indifferent to innovation, renovation and hard working, along with looking down capitalism (Kshetri, 2011). The performance of entrepreneurship is hampered due to the underutilisation of entrepreneurial resources (Kaburi et al., 2012). Hood and Young (1993) suggested that content, skills and behaviour, mentality, and personality are the critical areas to be focussed on by successful entrepreneurs for development.

Currently, research focus is seen in the field of 'transnational entrepreneurship' (Harima and Baron, 2020), entrepreneurship in diaspora – which is considered opportunity driven field (Harima, 2014; Harima et al., 2019, 2016) and depends mainly on the creation of networks and new venturing types to establish initial activities (Mayer

et al., 2015; Elo et al., 2015), sustainable entrepreneurship (Crecente et al., 2021; Hummels and Argyrou, 2021), green entrepreneurship (Muo and Azeez, 2019), social entrepreneurship (Lehner and Kansikas, 2013), and many such other aspects, while very little works are seen in the literature when it comes to entrepreneurial activities in lower income countries.

Entrepreneurship is becoming a global phenomenon (Smallbone et al., 2014). Schumpeterian entrepreneurs exist wherever market-oriented practices are allowed to happen by the political system and in those countries with socioeconomic barriers or problematic societies. The innovative enterprises or organisations can also exist in such societies (Campos, 2010). However, innovation plays a key role in encouraging economic development worldwide (Mowery and Oxley, 1995), and it provides for higher rate of growth, employability, and productivity (OECD, 2007). Entrepreneurship also contributes to the growth and prosperity of the enterprises whether it is a developed or a developing country (Crespi and Zuniga, 2011).

The technological advancement and globalisation of markets around the world have encouraged enterprises and organisations to stimulate entrepreneurial activities (Shahidi and Smagulova, 2008). Such exposures are exposing the organisations and the enterprises to a plethora of challenges – which the organisations are required to encounter and gear up their efforts towards realising economic growth and development. The challenges that entrepreneurs face differ from country to country. A critical challenge of an enterprise in one country may not be as critical or not a challenge for a similar enterprise in another country (Eriobunah and Nosakhare, 2013).

The Global Entrepreneurship Monitor (GEM, 2016) reported that total entrepreneurial activity (TEA) in China is almost as high as in the USA, even though the USA being a developed country is referred to as innovation driven economy. The lowest level of TEA was reported by GEM in Germany, France, Portugal, Italy, Greece, and Spain. The report continues that the TEA level decreases along with the level of development reported in an economy; and when a country gets richer, it is observed that the TEA shifts from the necessity to opportunity-based activities.

What is obvious here is that, the level of development in an economy undoubtedly impacts the level of TEA, and hence triggers the need to explore the entrepreneurial activity observed/experienced in lower income countries (in our case, Yemen being a least developed economy). The existence of entrepreneurial challenges in an innovation driven economy and developed economy symbolises the existence of more intense challenges to the entrepreneurial activities carried out in developing and the least developed countries across the world.

Business survival/sustainability is largely influenced by their institutional and external capabilities (Das et al., 2020); and for encouraging productive entrepreneurship, (Brixiova and Aragie, 2010) it is suggested reform at a very starting point by removing rigidities and establishing intellectual property rights, as it tends to narrow down the skill gap promotes establishing productive firms (Brixiová and Égert, 2017). Anderson et al. (2010) identified affordability, availability, awareness, and acceptability would act as critical elements for surviving in a developing economy and serving low income successfully serving low income customer groups. Taking into consideration the role played by SMEs in underdeveloped economies, survival of the SMEs demands initiatives by the policy makers and development partners which has been under-researched when it comes to the context of underdeveloped economies.

The previous work of other authors differs by being characterised into many aspects, the first aspect is work related to fast developing economies where economic empowerment is more robust, the second aspect is work investigating the performance or the challenges faced by entrepreneurs themselves, and the third aspect is relevant to work that has been conducted in business environments that are contextually and culturally different from the Yemeni business environment. This leaves the aspect of investigating the challenges and obstacles faced by SMEs in underdeveloped economies as an untapped area.

Taking into consideration the Yemeni perspective, there is a scant amount of literature about entrepreneurial challenges faced by SMEs. A theoretical review (Saleh and Manjunath, 2020b) divided the challenges into two groups, structural challenges – that normally face enterprises in almost all business environments, and the temporary challenges – that SMEs in Yemen face during the recent period of political and economic instability.

This has triggered the need for an empirical investigation of the entrepreneurial challenges faced by SMEs in Yemen. This research paper aims to empirically investigate all such factors that impact the performance, productivity, and growth of SMEs in lower income countries – taking Yemen as a study case. This study adds to the literature, a research model which is proposed to measure the factors influencing SMEs performance in an underdeveloped economy, further, with a special focus on the emerging challenges which are temporarily active during the unstable political and business environments.

2 Literature review and hypotheses development

Nayar and Kiran (2012) opine that entrepreneurship is challenged in three perspectives which are distribution, government regulation, and entrepreneurial culture. Infrastructure hits distribution, while licenses and obtaining finance is plagued by the governments regulations, and being risk-averse acts as a demotivation for youth to take up entrepreneurship. There is due attention that has been paid towards entrepreneurial challenges faced by the new entrepreneurs or newly established SMEs. Challenges faced by them are relating to assembling a team, raising capital, choosing the right place and staff while establishing the enterprise, overcoming the competition, and keeping up with trends of business and industry (Lohitkumar et al., 2016). The external challenges hindering enterprises/entrepreneurs' performance are the financial challenges and family issues; and internal such as, lack of skills, inadequate or total lack of education (Bajpai, 2014).

Some other challenges the entrepreneurial activities are affected by are infrastructural requirements, huge government bureaucracy (expressed in regulations), the need for establishing more domestic venture capital firms and adopting innovative measures in the market (Gajjala, 2006); familial occupational background and the regional development (Goel et al., 2007); which cause poor performance as a result of working capital deficiency, tax regulations and adequate encouragement by the social system (Dash and Kaur, 2012).

However, the development of infrastructure and technology always plays a key role in enabling and facilitating the development of entrepreneurial activities (Woolley, 2017; Audretsch et al., 2015), which often leads to the migration of entrepreneurs from

developing economies to search for better entrepreneurial and economic opportunities (Marks et al., 2020).

The well-being of an entrepreneurial organisation is a crucial character; as such organisations are considered different from other organisations by being able to sustain their competitive advantage (Gopinath and Mitra, 2017).

For being successful self-initiated entrepreneurs, it is essential to carry a global, social, sustainable, and entrepreneurial mindset. An entrepreneurial mindset is considered a predisposition to see the world in a particular way and act accordingly (Waite, 2014). Business creation and economic development depends on the way with which business incubators respond to local needs (Meru and Struwig, 2015). Such support along with continuous improvement and innovation is a necessity for firms and companies to remain competitive (Atari and Prause, 2019). However, in the least developed countries, government, finance and infrastructure don't contribute towards such development (Motilewa et al., 2015) even though they provide support to new startups (Ajagbe et al., 2015). Improving the possibility of better entrepreneurial skills, entrepreneurial activities and performance is mainly based on using practical and experiential activities in education (Olokundun et al., 2018), ethical practices (Ogbari et al., 2016), and the competence of entrepreneurship educators (Ibidunni et al., 2017).

Academics used to prepare students for careers in giant manufacturing, banking, and transportation enterprises until the 1980s, then entrepreneurship started to exist and people cultivated an interest in understanding how companies came into existence (Schramm, 2018). Creating new businesses is a challenge, but it is more challenging for large companies because emerging businesses rarely get integrated smoothly with well-established processes, systems, and cultures. Moreover, they would be required to create, develop and sustain innovative business, which requires them to have two faces – one focused on the old, and the other seeks the new and innovative methods (Garvin and Levesque, 2006). Time is not a friend of the entrepreneurs when they try to be innovative, if they need to gain momentum, they need to create something that is saleable and begin to sell it (McGinn and Frick, 2018). Further, knowledge is considered essential and a crucial resource for entrepreneurs, as it plays a key role in developing entrepreneurial activities (Fuller-Love and Akiode, 2020; Marks et al., 2020).

OECD (2009) grouped the top barriers faced by SMEs into four categories;

- a barriers relating to capital and financial resources
- b barriers relating to information to locate and target markets including overseas markets as well
- c barriers relating to the ability to contact and target prospective customers
- d barriers relating to managerial skills, knowledge, and experience.

The Global Competitiveness Index of 2012 reported sixteen factors that act as the most crucial factors for doing business in over 140 countries. The very important factors include; inefficient government bureaucracy, insufficient capacity to innovate, accessing the required funds, and uneducated workforce; taxes, laws and regulations, inflation and policy instability – being other few significant factors on the list (the less critical factors in the list included corruption, poor public health, instability, crime, and theft) (Schwab, 2012).

Normally, SMEs face challenges all over the world (Isaga and Musabila, 2017), but such challenges get severe in developing (Sultan, 2019) and least developed countries (Utoikamanu, 2019). Moreover, these challenges become more intensive where there is political and economic instability (Moyer et al., 2019). Leaving such challenges unaddressed will only prolong the instability and hamper the health of the economy (World Bank, 2019b). This implies the need for developing solutions that address the failure in the business environment arising from such political instabilities and conflicts that severely hampers the performance and growth of SMEs.

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2.1 Dependent variable

2.1.1 SMEs performance

Research indicates that the perceived performance of enterprises should be used to measure the overall functional performance and not only the financial performance (Gomezelj and Kušce, 2013). Therefore, the perceived performance differs from one business environment to another, which implies that perceiving impressive performance in underdeveloped economies, especially the ones witnessing political and economic instability would be compromised as the number of challenges increases during such periods. Considerable research has been dedicated towards evaluating the performance of firms and enterprises and such factorial relevance to the success and goal achievement by firms and enterprises (Neely et al., 1995, 2000; Taticchi et al., 2010; Nudurupati et al., 2011). Prior to the 1980s, measuring the performance of firms and companies was mainly based on financial data, offlate, it was observed by researchers that the information related to comprehensive performance cannot be captured by financial data alone (Wu, 2009).

According to Lebas and Euske (2002), performance is a set of financial and non-financial indicators that reflect information about the goal accomplishment in a firm, or it can be a set of metrics measuring the efficiency and effectiveness of activities in an organisation (Neely et al., 2000) where Anggadwita and Mustafid (2014) describe the performance as a measure of the success of a company. Rosli and Sidek (2013) indicate performance as a mirror to an enterprise accomplishments, because of being a centre point for evaluation.

For achieving the objectives of this study, a scale for measuring performance among SMEs is adopted from (Yu et al., 2018) where respondents were asked to give their

opinion on a five-point Likert scale regarding the current performance of the enterprises compared with other enterprises, their sales, how it is expected to grow in future, and finally their perception towards the potential their enterprises possess to develop in future.

2.2 Dependent variables

2.2.1 Legal factors and performance of SMEs

The factors that impact the enterprises' capabilities and the institutional environment in a country includes regulations, procedures and policies (Ajayi, 2016). The SMEs being a crucial sector in underdeveloped economies, they demand the support and protection of the regulatory system, so as to contribute efficiently towards the country's GDP.

Generally, regardless of their importance, legal systems in developing countries are known for having weaknesses in providing a conducive business environment for SMEs (Ufua et al., 2020). The legal aspects and its relevance to the operations of SMEs have been investigated in the literature, Wang and Ang (2004) pointed that unfavourableness and competitive rivalry are two crucial factors affecting the function of business. Further factors affecting the business performance include competition (Neu and Brown, 2005), corruption (Krasniqi, 2007), unhealthy competition (St-Jean et al., 2008), complex laws, regulation and unfavourable tax systems (Davidsson, 1989), and high tax systems (World Bank, 2013a). However, Global Competitiveness Index 2012 reported that legal factors such as corruption and poor public services were reported as less influential than other factors such as uneducated workforce and insufficient access to funds and innovation (Schwab, 2012). The World Bank indicates that weaknesses can lie in the governance and regulatory enforcement rather than the laws and regulation themselves (World Bank, 2015). In less developed economies, SMEs sometimes lack the capacity to distinguish between legal and corrupt practices because of grey areas which result in them indulging in corrupt practices to survive competitions (UNIDO, 2012). In this background, the following hypothesis is developed:

H₁ Legal factors have a direct effect on the performance of SMEs.

2.2.2 Financial factors and performance of SMEs

One of the crucial determinants of SMEs success is their ability to access external financial sources (Falcetti et al., 2003). Lack of access to finance poses a major challenge for enterprises, regardless of any other challenges, having access to needful financial resources facilitates them to reduce such challenges (Viswanadham, 2017). Accessing external funds is hindered by entrepreneurial and financial characteristics of the enterprise (Kung'u, 2011). However, lacking the basic qualities such as understanding customer's needs, essential entrepreneurial skills, awareness towards regulatory standards, along with lacking financial support from the government pose challenges for entrepreneurs to penetrate international markets (Kazimoto, 2014).

According to the World Bank, access to financial services is a major barrier that constrains the ability of SMEs to grow and contribute to economic growth (Ardic et al., 2011). Bongomin et al. (2017) state that accessing finance is significantly associated with the growth and development of SMEs in developing countries.

The high cost of capital is considered a major burden for SMEs (Bartlett and Bukvič, 2001), and the limited financial resources hold enterprises from entering the market (Malik, 2010). Hay and Kamshad (1994) highlight financial factors that hamper the performance and success of SMEs, these factors include: delays in obtaining new capital, inadequate availability of finance, venture capital and qualified labour. Jebna and Baharudin (2013) reported that cash flow, and the amount of sales and revenue are factors that influence the success of SMEs. Senik et al. (2010) pointed that a sound finance position plays a significant role in determining the success of enterprises. Based on such review, the following hypothesis is generated:

H₂ Financial factors have a direct effect on the performance of SMEs.

2.2.3 *Temporary factors and performance of SMEs*

Temporary factors are the emergent factors that act as obstacles in the business environment for a temporary period of time such as war events, political instability or the consequences of such instability (Saleh and Manjunath, 2020b). The performance of organisation is mainly based on the stability of governments; which implies that they require a stable business environment; and any instability makes it challenging for SMEs to function and perform (Daneji and Bazza, 2013). Gaviria (2002) indicated that unofficial payments and indulgent of SMEs in illegal payment in corrupted regimes hampers any chances of growth and development.

Under such circumstances, businesses sometimes tend to relocate their activities for better infrastructure and access to key services (Baron, 2018). The World Bank reports that around 20% of enterprises in Yemen choose to relocate their business due to unstable economic condition (World Bank, 2019b), which has resulted in new obstacles i.e., loss of customer base and distance relocation (Knoben and Oerlemans, 2005). Further, crime, theft and disorder would tend to increase under unstable conditions resulting in more complications for SMEs to operate (Oxfam, 2016; UNDP, 2019). This discussion leads to generating the following hypothesis:

H₃ Temporary factors has a direct impact on the performance of SMEs.

2.2.4 *Managerial factors and performance of SMEs*

Managerial factors influence SMEs' performance, as the development of SMEs is challenged by a lack of organisational capabilities. Performance measurement systems are supposed to play a key role in achieving managerial development among SMEs (Garengo and Bernardi, 2007). It is very obvious that obstacles influencing enterprises among young entrepreneurs (more particularly, women entrepreneurs) are finding qualified workforce, balancing the work-home environment and realising less profits (Hasan et al., 2016). These factors can be less challenging when sufficient formal training along with access to necessary market infrastructure is provided and leadership and contextual characteristics of enterprises are enhanced (Jayawarna et al., 2007).

Wasserman (2008) wrote that every entrepreneur would dream to become another Bill Gates, a Phil Knight, or an Anita Roddick, who successfully established and led large companies, but after analysing American start-ups, the researcher explored that the founders surrender management before their firms went public, and only 25% led their companies even after such ventures were five years old. Further, the majority of the

entrepreneurs are forced to give up the CEO's post, because they face choices at every step whether to make money or manage ventures.

Successful enterprises come from the founders' vision and their drive to build something they want to see in the world, and their path for that is delighting to the customer (McGinn and Frick, 2018). Their innovation can be impacted by their ability to take risks, manage networking capabilities, be innovative, and proactive (Ajayi, 2016); as the innovation of process, product, organisation and marketing always have a positive influence on the performance of SMEs (Oduro, 2019).

The success of entrepreneurship is based on adaptability, experience, goal setting, adopting differentiation strategy and training and development initiatives to equip their staff (Marks et al., 2020).

According to International Monetary Fund (IMF, 2005), mismanagement and excessive centralised system of administration are common business challenges among developing countries. Limited knowledge or lacking such knowledge about business management (Iriyanti and Azis, 2012) and market economic conditions (Krasniqi, 2007) act as a challenge for business enterprises growth and performance.

The educational and training infrastructure act as a determinant for the success of business organisations (Robertson, 2003). OECD (2010) pointed that developing human resources is a challenging barrier, therefore, training and development of human resources is less in SMEs than in large firms.

The lack of education and training leads to a reduction in the managerial abilities among new firms (Orford et al., 2003). The failure of new firms is caused where there is a lack of managerial experience and skills (Martin and Staines, 1994). Iriyanti and Azis (2012) state that management skills are one of the major barriers faced by SMEs.

Jebna and Baharudin (2013) point that experience is one of the non-financial dimensions influencing the success of SMEs. Further, Krasniqi (2007) state that skilled and experienced employees are considered as one of the key determinants of SMEs success. This leads to hypothesising the following statement:

H₄ Managerial factors have a direct effect on the performance of SMEs.

2.2.5 Infrastructure factors and performance of SMEs

According to World Bank (2013b), Infrastructure is one of the top challenges for business in developing countries. Poor infrastructure such as poor-quality broadband, local roads or transport act as major challenges to small businesses (Kelly, 2016; Obokoh and Goldman, 2016).

Olawale and Garwe (2010) point that infrastructure is an external obstacle determining the success of SMEs. Limited and inadequate infrastructure acts as a barrier for SMEs to grow and develop their business performance (Siringoringo et al., 2009). Ufua et al. (2020) state that infrastructure development is more of a necessity for SMEs to thrive and boost the economy with their improved performance.

Daneji and Bazza (2013) point that the performance of organisations is dependent on adequately providing promising infrastructure or enabling environment in the context of providing facilities such as water and electricity supply, transport systems and telecommunication. Further, Ufua et al. (2020) indicate that the ability of SMEs to adopt technology and information systems is mainly dependent on the infrastructure utilised by them. Based on these reviews, the following statement is hypothesised for the study:

H₅ Infrastructure factor has a direct impact on the performance of SMEs.

2.2.6 Marketing factors and performance of SMEs

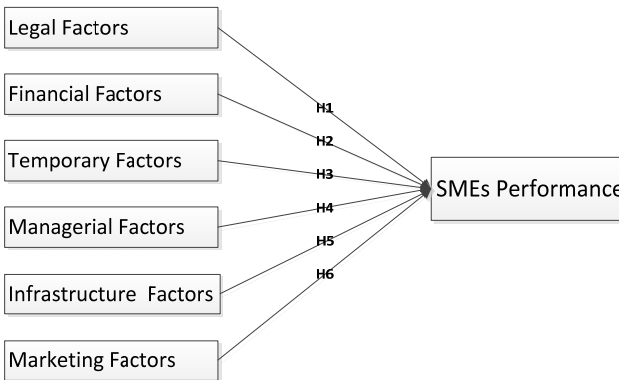
The strategic use of information technology (Kim and Jee, 2007) and adopting e-commerce (Abebe, 2014) by SMEs act as influencing factors on their performance; and more importantly, the regulatory climate as it may act as a prohibitive factor on SMEs' innovativeness (Hardie and Newell, 2011). Efficient marketing appears as one of the crucial factors that determine the ability of enterprises to survive in a dynamic business environment which determines the success/failure of an SME. The inability to adopt marketing practices contributes towards hampering the competitive abilities of enterprises (Alqadasi, 2008).

Marketing today is a tool used by SMEs to survive and operate in a competitive business environment (O'Dwyer et al., 2009). Therefore, lacking essential marketing skills leads to the inability of SMEs to compete in the market (Cant, 2012; Van Scheers, 2011). Hence, SMEs are required to strengthen their capabilities in the area of marketing (Abonyi, 2003).

Intense competition faced by SMEs acts as a functional obstacle in developing countries (Olawale and Garwe, 2010). In the era of globalisation, companies continue to be affected by competition around the world (Bender and Fish, 2000). According to the World Bank, and based on responses compiled from 45,000 companies in developing countries, it is found that competition from the informal sector is considered as one of the top constraints concerning SMEs (World Bank, 2013b). Such competition from the informal sector takes place due to lack of proper entrepreneurship competencies and institutional resources (OECD, 2019; Cusmano et al., 2018; Teima et al., 2010). Healthy competition, along with supporting framework/conditions creates opportunity for SMEs to thrive and realise the goals of sustainable development (OECD, 2017). Allocating essential budget for marketing activities stands as an obstacle for most of the (Jebna and Baharudin, 2013). Based on such review, the following hypothesis is drawn:

H₆ Marketing factors have a direct impact on the performance of SMEs.

Figure 1 The theoretical model based on the literature reviewed and hypotheses developed for discussion and investigation



Source: Review of available literature

2.3 Theoretical background of the Yemeni context

Yemen is located in the Gulf area, yet is not a Gulf country – due to a number of political and economic reasons. Its population is 28,498,687, with a total area of 527,968 squared kilometre and a density of 54 persons per square kilometre, and with a GDP per capita of USD 929 (World Bank, 2015, 2018b; CIA, 2018). Yemen was established as a Republic on the 22nd of May 1990 (Rabi, 2014).

The Society of Yemen being a tribal, traditional society, is often described as a primitive society – as it has not evolved or become modern yet, which is a contributing factor to its backwardness (Caton, 2013). The economy of Yemen is considered to be the poorest economy in the Middle East and North Africa (MENA); it trails behind all other economies in the MENA region, in terms of economic performance, governing justly and democratically, and investing in people, which makes it one of the least peaceful/secure countries worldwide (USAID, 2011; World Bank, 2017).

Yemen has not yet achieved significant development in entrepreneurship, according to the World Bank's reports, Yemen was ranked as the 187th country during 2019 in terms of doing business among 190 countries worldwide (World Bank, 2019a) against 90th rank during 2006 (World Bank, 2005). When it comes to enterprising or establishing a business, entrepreneurs during 2019 were required to go through seven procedures, wait 40 days and pay the cost which is around 118.8% of per capita income (World Bank, 2018a) against twelve procedures, waiting period of 63 days and pay the cost of around 240.2% of cost per capita income during 2006 (World Bank, 2005). The political chaotic unrest caused a major effect on the deterioration of the business process and economic growth in the country.

2.3.1 SMEs in Yemen

SMEs in Yemen play a key role in the economic growth and the GDP of the country; representing large number (95%) of enterprises of the business sectors in Yemen (World Bank, 2013b). According to the statistical yearbook (CSO, 2017), among private sectors, where small enterprises contribute 44.5% of the employment and 21.3% of the total employees' compensation, medium enterprises account for 19.5% of the total employment and 14.4% of the total employees' compensations.

Yemen still lacks unique and official definition and classification of SMEs (Saleh and Manjunath, 2020a). The Ministry of Industry and Trade has an administrative unit called 'Administration of small and smaller enterprises', according to which, micro enterprises are the ones who employ up to five workers with a capital investment of not more than one million Yemeni rial (around USD 4,500); small enterprises are the ones employing six to 15 workers with a capital investment not exceeding twenty million Yemeni rials (around 10,000 USD); while medium enterprises are the ones employing up to 50 workers with a capital investment not exceeding one billion Yemeni rial (450,000 USD) (Qaied and Basavaraj, 2020; Alsabai, 2011). However, this classification differs in various resources in the literature. Further, from regulatory perspective, there is no Act defining or classifying micro, SMEs in Yemen.

3 Methodology

3.1 Sample

Regardless of lacking official records about the number of SMEs in Yemen, the study considers the available reports relating to SMEs and their performance. Reports say that almost all enterprises in Yemen (more than 95%) fall into the category of SMEs (World Bank, 2013b). According to the baseline survey conducted in 2000, the number of micro, SMEs in the country were estimated to be 310,000 employing more than 500,000 workers (Alhammadi and Shahadan, 2014). According to the International Labour Organizations (ILO), Yemen has the largest number of SMEs in the Middle East which is around 1.8 million (Alarabi, 2015). Enterprises in two cities, Sanaa – the capital city in the north and Aden City in the South of Yemen are selected for the study. Beyond being accessible for data collection during the current political instability, the two cities host the majority number of enterprises in the service and manufacturing sectors. The non-probability sampling technique is used for profiling respondents, due to instability in the cities where data was collected and unavailability of data with regard to the total population upon which the research aim to generalise the study results.

Table 1 Descriptive statistics of the profile of respondents

<i>Factor</i>		<i>Frequency</i>	<i>Percent</i>
Region	Sana'a	218	55.3%
	Aden	176	44.7%
	Total	394	100.0%
Field of enterprise	Manufacturing	138	35.0%
	Service	144	36.5%
	Trade	112	28.4%
	Total	394	100.0%
Ownership of enterprise	Sole ownership	270	68.5%
	Partnership with others	124	31.5%
	Total	394	100.0%
Number of employees	1–4	90	22.8%
	5–9	112	28.4%
	10–19	120	30.5%
	20–49	56	14.2%
	50–99	16	4.1%
	Total	394	100.0%
Establishment year	1995–2000	31	7.9%
	2001–2005	67	17.0%
	2006–2010	80	20.3%
	2011–2015	118	29.9%
	2016–2020	98	24.9%
	Total	394	100.0%

Source: Primary data/survey analysis

A team of two MBA students in Yemen were assigned to collect the data by distributing the questionnaires after receiving instructions and guidelines from the authors in addition to the explanations provided by the authors remotely through phone calls to respondents during the process of filling the questionnaire. As a research sample of minimum 200 is recommended to provide sound results in exploratory factor analysis (EFA) (Hair et al., 2019); this study aimed to compile more than 300 respondents. Further, according to 'RaoSoft' sample size calculator (<http://www.raosoft.com/samplesize.html>), a sample size of 383 is sufficient to generalise result over 1,00,000 population. 450 questionnaires were distributed among enterprises, 428 were returned, out of which, 394 were found complete and hence included in the data analysis after performing the data screening process with Mahalanobis distance.

The majority of the sampled enterprises (55.3%) are located in Sana'a – the capital city, among them 36.5% of the enterprises belong to the service sector while 35% are manufacturing sector. The majority (68.5%) are solely owned enterprises, most of the enterprises employ less than 20 employees. Further, majority of the enterprises are established after 2010. Further details are compiled and presented in Table 1.

3.2 Measurement

3.2.1 Independent variables

For content validity measure, the literature was reviewed to extract the possible factors that could play a role in determining the performance of SMEs in underdeveloped economies. The factors that are referred to in the literature to have an effect on their business performance are taken as independent variables in this study. According to the reviewed literature, factors are grouped into six different groups which are legal factors (e.g., labour regulation, corruption, court practices); financial factors (e.g., lack of access to credit, high interest rates); temporary factors (e.g., political instability, theft, crime and disorder); managerial factors (e.g., lacking skilled workforce, training workers and employees); infrastructure factors (e.g., roads and transportation, communication networks) and marketing factors (e.g., competition activities, budgetary constraints). These variables are said to affect the performance of SMEs in other cultural aspects and contexts. As shown in Table 2, the variables have been grouped according to the relevant literature. All these items are adopted from many (resources) literatures (majorly, Schwab, 2012; OECD, 2009; Saleh and Manjunath, 2020b; GEM, 2016; Bouazza et al., 2015; Krasniqi, 2007; Irfayanti and Azis, 2012).

Respondents were asked to give their opinion on the extent to which the adopted items are causing hindrance to their business performance (based on a 7-point scale which ranges from 1 = completely not influential to 5 = completely influential). The responses are averaged by calculating the weighted mean score to identify the emphasis and extent to which they influence across independent variables.

Table 2 shows the items adopted from the literature which are grouped into the assumed latent factors.

Table 2 Obstacles faced by small and medium enterprises

<i>Factors related to finance</i>	
<i>Fund1</i>	Lack of access to credit
<i>Fund2</i>	High interest rates
<i>Fund3</i>	Laws and regulations
<i>Fund4</i>	Unforeseen expenses
<i>Fund5</i>	Collaterals for obtaining loans
<i>Fund6</i>	Lack of capital
<i>Fund7</i>	Complexity of procedures of loan applications
<i>Fund8</i>	Sticking to budget
<i>Factors related to marketing</i>	
<i>Mkt1</i>	Competition activities
<i>Mkt2</i>	Keeping up with trends
<i>Mkt3</i>	Foreign products competition
<i>Mkt4</i>	Choosing the right social media platforms
<i>Mkt5</i>	Obtaining marketing related information
<i>Mkt6</i>	Budgetary constraints
<i>Mkt7</i>	Lack of resources to carry a marketing plan
<i>Factors related to temporal challenges</i>	
<i>Temp1</i>	Illegal fees to function business
<i>Temp2</i>	Political instability
<i>Temp3</i>	Ceasing functions during the instability
<i>Temp4</i>	Relocating business operations
<i>Temp5</i>	Spending on guarding the business
<i>Temp6</i>	Theft, crime and disorder
<i>Factors related to management</i>	
<i>Mng1</i>	The ability to innovate in the business process
<i>Mng2</i>	Lacking skilled workforce
<i>Mng3</i>	administrative management
<i>Mng4</i>	Lack of market knowledge
<i>Mng5</i>	Training workers and employees
<i>Mng6</i>	Lack of operational experience
<i>Mng7</i>	Lack of networks
<i>Mng8</i>	Records control
<i>Factors related to infrastructure</i>	
<i>Inf1</i>	Roads and transportation
<i>Inf2</i>	Electricity and internet supply
<i>Inf3</i>	Lack of logistic facilities
<i>Inf4</i>	Communication networks
<i>Inf5</i>	Information infrastructure
<i>Inf6</i>	Access to lands and buildings

Source: Reviewed literature

Table 2 Obstacles faced by small and medium enterprises (continued)

<i>Factors related to legal issues</i>	
<i>Leg1</i>	Labour regulation
<i>Leg2</i>	Administrative dropout
<i>Leg3</i>	Informal sector's practices
<i>Leg4</i>	Corruption
<i>Leg5</i>	Court system practices
<i>Leg6</i>	Prohibitive laws and policies
<i>Leg7</i>	Illegal payments
<i>Leg8</i>	The absence of a ministry or supervising authority for SMEs
<i>Leg9</i>	Commercial license procedures
<i>Leg10</i>	Import and export procedures
<i>Leg11</i>	Tax system and administration

3.2.2 Dependent variable

The performance of SMEs is considered as the mirror to an enterprise, as being a centre point for evaluation (Rosli and Sidek, 2013). Further, it is a measure to determine the success of a company in achieving its goals (Anggadwita and Mustafid, 2014). Research works indicate that the perceived performance of enterprises should be used to measure the performance and not only the financial performance (Gomezelj and Kušce, 2013).

Respondents were asked to give their opinion based on a five-point scale, on the current performance of their enterprises as against other enterprises, their sales and how it is anticipated to grow in future, and finally their perception towards the potential of their enterprises to accelerate growth in future. The items are adopted from (Yu et al., 2018) (the responses compiled in this regard are based on 5-point scale ranging from 1 = strongly disagree to 5 strongly agree).

3.2.3 Statistical tools

By using SPSS v26th, the data was randomly split into two parts (50% each), EFA with principal component technique and varimax rotation method is applied to validate the dimension reduction as assumed in the literature; that is, each and every item/factor is highly correlated with one another under each latent variable (Hair et al., 2009). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test for sampling adequacy ranges between 0 and 1, it is preferred to be over 0.6 (Awang, 2012a; Hair et al., 2009). Total variance explained is also assessed where eigenvalues exceeding 1.0 are extracted as components. Total variance explained is usually .60 or higher (Awang, 2012a; Pallant, 2016; Hair et al., 2019). Factor loadings in the rotated component matrix, which range from .641 to .910, are assessed, and factor loadings higher than 0.6 are kept for further analysis (Awang, 2012a), which is also supported by sample size (Hair et al., 2019).

It is suggested that Cronbach's alpha value of 0.60 or higher provides a reliable measure of internal consistency, while a value higher than 0.70 indicates a high reliability standard of an instrument (Hair et al., 1998; Awang, 2012a). Cronbach's alpha of the total

scale in this study is 0.850. Further, McDonald's omega test for reliability (Hayes and Coutts, 2020) is applied and the observed value for the whole scale is 0.826.

IBM Amos is chosen for running the confirmatory factor analysis (CFA) as well as structural equation modelling (SEM) as it is used to assess the relationships among variables (Arbuckle and Wothke, 2005). Therefore, CFA was applied on the second sub dataset to ensure that the extracted dimensions in EFA provided a good fit for the proposed model. Three more items were dropped during CFA i.e., infrastructure, temporary factors and legal factors being problematic in their loadings to the constructs. By using the statistical tool developed by Gaskin and Lim (2016), composite reliability ($CR > 0.7$), average variance extracted ($AVE > 0.5$) and discriminant validity are established (Hu and Bentler, 1999). Further, satisfactory model fit indices are met such as ($CFI > 0.9$, $GFI > 0.8$, and $RMSEA < 0.05$) according to Baumgartner and Homburg (1996), and Doll et al. (1994).

Structural equation modelling is applied in light of its role in explaining the causal relationship (Hair and Babin, 2006; Schumacker and Lomax, 2004), and the impact of the independent variables on the performance of SMEs. A detailed interpretation of these steps is presented in the results section below.

4 Results and findings

4.1 Exploratory factor analysis

As discussed earlier, EFA was conducted to ensure that the extracted variables are distinct and non-overlapping on each of the factors proposed. 33 out of 46 variables were extracted and clustered in seven factors, while the rest were not found correlating to their assumed factors (Table 3) yielding a satisfactory overall result the KMO (measure of sampling adequacy) for the extracted variables (among the seven factors altogether) is 0.852, and yielded seven factors explaining a total of 71.491% of observed variance based on the results of the eigenvalues, where the first factor (legal factors) explained the highest variance (25.2%), the second factor (financial factors) explained around 12% of the variance, the third factor (temporary factors) explains 10.7% of the variance, the fourth factor (managerial factors) explains 8.1% of the variance, and the rest factors (infrastructure factors, marketing factors and SMEs performance) explained 6.1%, 5.1% and 4.4% of the variance respectively. Cronbach's alpha of all the variables altogether is 0.850 and McDonald's omega is 0.826 indicating that the samples results are satisfactorily acceptable.

Table 4 illustrates the statistics relating to the mean and standard deviation of responses in the first sub dataset ($N = 197$), where the mean score ranging from 2.30 to 3.93, the lowest mean scores being the SMEs performance construct. The factor loadings of the extracted items, and the reliability measure i.e., Cronbach's alpha and McDonald's omega are presented. As shown in Table 4, the latent variables extracted are correlated at a low level or not correlated to each other. Further, the loadings of the extracted variables under each of the latent variables are highly correlated to each other, and are found satisfactory where they range from 0.656 to 0.899.

Table 3 EFA by using principal component analysis

Factors	KMO measure of sampling adequacy	Bartlett's test of sphericity	Significance	Variance explained		Cronbach's alpha (omega)
				Eigenvalues	%	
Legal factors	0.852	4163.676	0.00	8.313	25.190	0.850
Financial factors				3.947	11.959	(0.826)
Temporary factors				3.533	10.706	
Managerial factors				2.700	8.182	
Infrastructure factors				2.014	6.103	
Marketing factors				1.706	5.170	
SMEs performance				1.379	4.179	

Source: Primary data analysis based on running exploratory factor analysis

Table 4 Values of factor loading and values of reliability measures of extracted factors from EFA

<i>Item</i>	<i>Mean</i>	<i>S.D.</i>	<i>Factor loadings</i>	<i>CA</i>	<i>MO</i>
Fnd1	3.46	1.11	0.872	0.934	0.937
Fnd2	3.25	1.22	0.830		
Fnd4	3.24	1.38	0.899		
Fnd5	3.57	1.29	0.890		
Fnd7	3.16	1.22	0.801		
Inf1	3.33	1.32	0.832	0.812	0.810
Inf2	3.16	1.22	0.751		
Inf4	2.96	1.19	0.785		
Inf6	3.28	1.30	0.679		
Mkt3	3.46	1.34	0.872	0.877	0.883
Mkt6	3.57	1.34	0.840		
Mkt7	3.52	1.24	0.828		
Mng1	3.45	1.14	0.821	0.874	0.874
Mng2	3.58	1.17	0.807		
Mng5	3.64	1.25	0.885		
Mng6	3.79	1.27	0.805		
Temp1	3.84	1.11	0.744	0.869	0.871
Temp2	3.70	1.11	0.806		
Temp3	3.93	1.17	0.817		
Temp4	3.86	1.13	0.840		
Temp6	3.75	1.16	0.747		
Leg1	3.46	1.27	0.664	0.911	0.912
Leg2	3.36	1.24	0.705		
Leg4	3.43	1.22	0.767		
Leg5	3.46	1.27	0.689		
Leg7	3.35	1.26	0.745		
Leg8	3.60	1.23	0.804		
Leg9	3.56	1.09	0.656		
Leg10	3.46	1.23	0.742		
Leg11	3.64	1.22	0.831		
Per1	2.30	1.27		0.811	0.867 0.868
Per2	2.39	1.21		0.816	
Per3	2.37	1.24		0.774	

Notes: S.D. = standard deviation, CA = Cronbach's alpha, MO = McDonald's omega

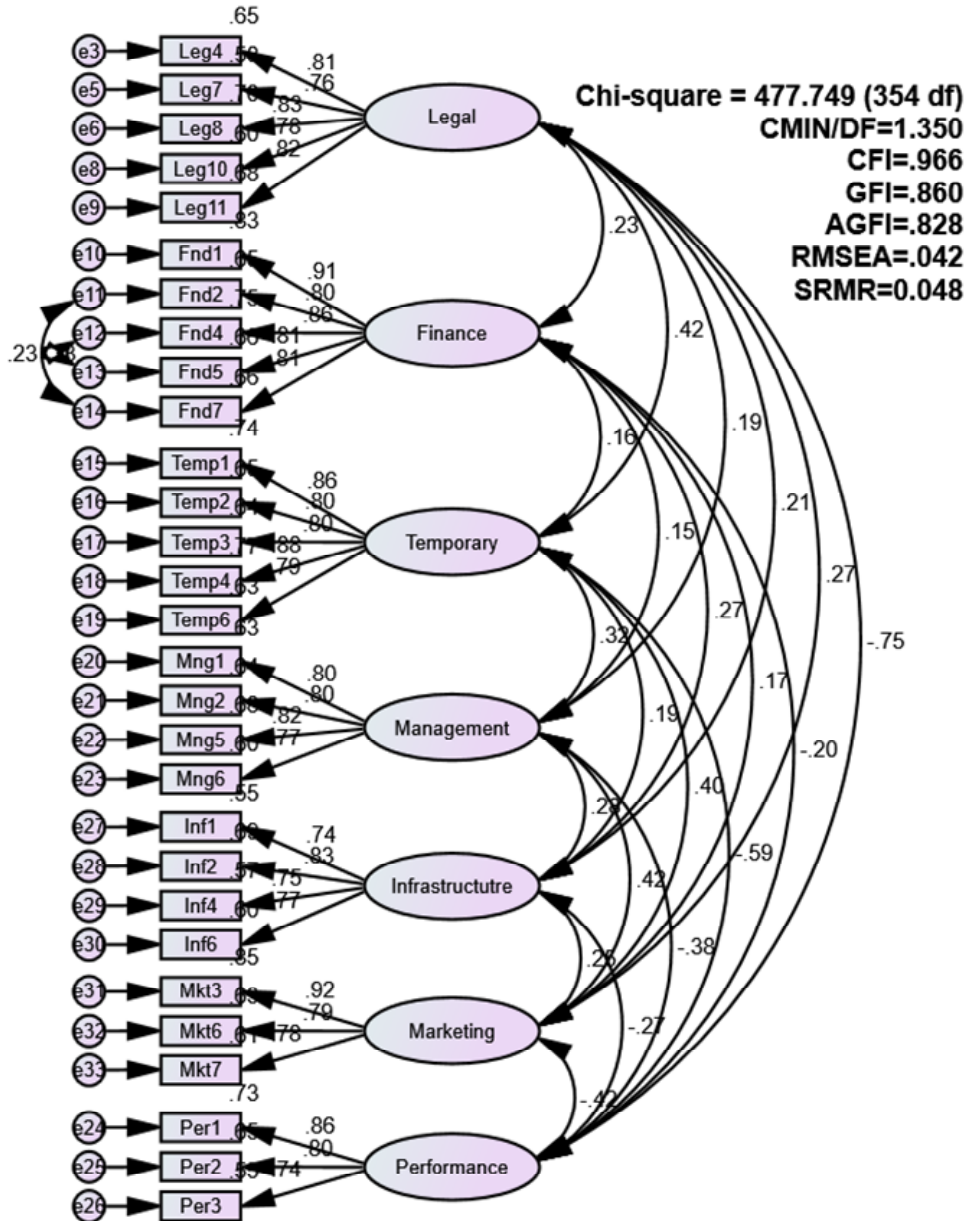
Source: Data analysis output

Further, the basic measures of reliability and internal consistency are established on the output of EFA, where Cronbach's alpha of all constructs ranges from 0.812 to 0.934, and similarly McDonald's omega shows satisfactory output with values ranging between

0.810 and 0.937 which indicates that the reliability of the extracted factors as well as their internal consistency are established (Table 4).

This leads to the conclusion that applying principal component analysis along with varimax rotation over the forty six variables gathered from the literature yielded seven factors along with their explained variance, factor loadings and reliability measures, which indicates that the yielded structure of seven factors is evident (Table 4).

Figure 2 CFA measurement model with standardised estimates (see online version for colours)



4.2 CFA of the measurement model

For the purpose of ensuring the reliability of the measurement model, CFA is performed where factors were allowed to correlate with each other for the purpose of running the measurement model and ensuring its fits into the data. Wherever, the model fit evaluation is based on values such as goodness of fit index (GFI), adjusted goodness of fit index (AGFI), comparative fit index (CFI), and root mean square of approximation (RMSEA). The derived results indicate that the model appropriately fits the data (CMIN = 477.74; CMIN/DF = 1.350; df = 354, a $p < 0.001$, CFI = 0.966; GFI = 0.860; AGFI = 0.828, and RMSEA = 0.042, and SRMR = 0.048), and is considered satisfactory results (Hair et al., 2009).

Figure 2 shows the CFA measurement model with the standardised regression weights of variables, exhibiting the statistics of the goodness of model fit, the ratio χ^2/df is found way less than 3.0 which is 1.418, CFI values being greater than 0.9 explains the goodness of fit of the CFA measurement model. However, GFI and AGFI values are less than 0.9 (0.854 and 0.822 respectively), yet they are considered acceptable according to Baumgartner and Homburg (1996), and Doll et al. (1994).

As shown in Figure 2, standardised regression weights range from 0.738 to 0.921, which explains the ability of estimators to predict and impact the performance of SMEs. Among all factors, infrastructure and marketing factors have low weights (>0.7) while other factors have higher weights (>0.8).

4.2.1 Construct validity

Convergent validity and discriminant validity have been examined using the statistical tool developed by Gaskin and Lim (2016) with factor loadings values of constructs being >0.7 , they are found significant at 0.05 significance level. Further, as observed in Table 5, CR is found to be greater than 0.7 for each construct, and AVE is found higher than 0.5 for all constructs which indicates the presence of good convergent reliability of the measurement model.

Discriminant validity is examined and found satisfactory as maximum shared variance (MSV) is found lower than AVE, which indicates the presence of good discriminant validity, as there are no cross loadings among variables. Table 5 illustrates the statistics of convergent validity as well as discriminant validity of the constructs. Further, the square root of AVE is observed to be greater than the correlations of inter-constructs; hence, it can be concluded that convergent and discriminant validity has been established with satisfactory results (Hu and Bentler, 1999).

This discussion indicates that the extracted variables are well correlated to their relevant factors, it also shows that respondents are able to distinguish among the variables across the seven factors in the proposed model, which improves the validity and reliability of the model used to measure the obstacles affecting the performance of SMEs in an underdeveloped country such as Yemen.

Table 5 Discriminant validity of constructs

#	Construct	CR	AVE	MSV	I	2	3	4	5	6	7
1	Legal	0.899	0.641	0.561	0.801						
2	Finance	0.923	0.707	0.07	0.232**	0.841					
3	Temporary	0.916	0.686	0.351	0.416***	0.162*	0.828				
4	Management	0.876	0.638	0.179	0.186*	0.148†	0.324***	0.799			
5	Infrastructure	0.857	0.600	0.080	0.213*	0.266**	0.188*	0.282**	0.775		
6	Marketing	0.871	0.693	0.179	0.274***	0.168*	0.399***	0.424***	0.249**	0.833	
7	Performance	0.843	0.642	0.561	-0.749***	-0.201*	-0.593***	-0.375***	-0.268**	-0.420***	0.801

Notes: † = $p < 0.100$; * = $p < 0.050$; ** = $p < 0.010$; *** = $p < 0.001$.

Source: Primary data analysis

4.3 Structure model

In the measurement model, the performance is proposed as an endogenous variable affected by factors such as finance, infrastructure, marketing, management, legal factors and temporary factors which are also considered as exogenous variables. Therefore, one-headed arrows move from exogenous variables towards the performance of SMEs. SEM is adopted to understand such causal relationships existing among the constructs, by applying the maximum likelihood method of estimation as it is presented as a covariance-based structural equation modelling in IBM Amos 24th version.

As observed in Figure 3, The structure model fits the data very well yielding satisfactory model fit indices (CMIN = 477.74; CMIN/DF = 1.350; df = 354, an $p < 0.001$, CFI = 0.966; GFI = 0.860; AGFI = 0.828, and RMSEA = 0.042, and SRMR = 0.048) which indicates that model outcome fits into the data and hence, it is considered as a reliable model to measure challenges and obstacles that are faced by SMEs in an underdeveloped economy.

Figure 3 Structural equation model with standardised values (see online version for colours)

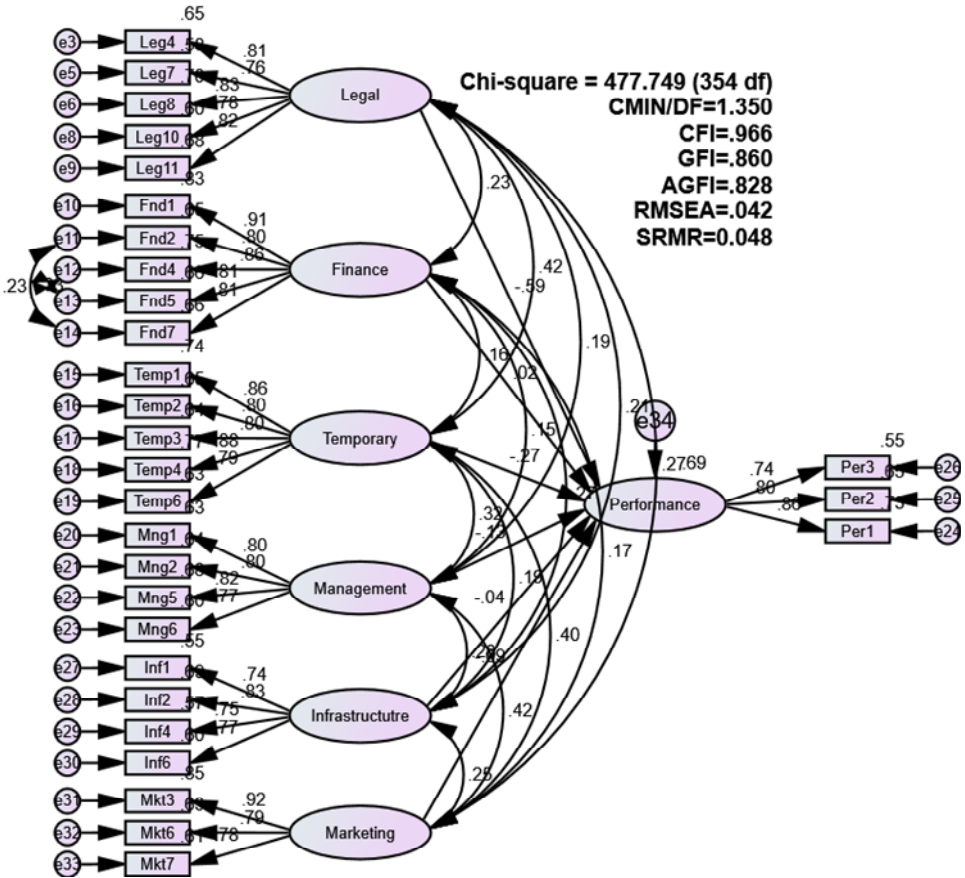


Table 6 Hypothesis testing (standardised and unstandardised coefficient)

<i>Hypothesis</i>		<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>Standardised regression weight</i>	<i>p</i>	<i>Decision</i>
Performance	<---	-0.646	0.081	-7.997	-0.586	0.001	Not rejected
Performance	<---	0.023	0.058	0.397	0.023	0.691	Rejected
Performance	<---	-0.264	0.067	-3.938	-0.266	0.001	Not rejected
Performance	<---	-0.153	0.075	-2.03	-0.134	0.042	Not rejected
Performance	<---	-0.046	0.073	-0.635	-0.039	0.525	Rejected
Performance	<---	-0.079	0.058	-1.36	-0.091	0.174	Rejected

Source: Primary data analysis

Based on the factor analysis of the subsample set from the dataset ($n = 394$, sub-sample = 197), we estimated a structure model, which is shown along with the yielded model fit indices in Figure 3, these indices indicate an acceptable model fit. This implies that the construct of SMEs' performance is theoretically explained by the factors such as, finance, marketing, infrastructure, management, legal factors and temporary factors.

As shown in Figure 3, standardised regression weights range from 0.738 to 0.921, explicitly showing their ability as estimators to predict their impact on the performance of SMEs. Among all factors, infrastructure and marketing factors have low weights (>0.7) while other factors have higher weights (>0.8).

Table 6 unveils the statistics of estimates and path coefficient of the structure model for examining the individual parameter estimates, as seen in the table, not all paths are significant and in the same direction, the estimates between the performance and factors related to finance ($\beta = 0.023$, $p = 0.69$), infrastructure ($\beta = -0.039$, $p = 0.525$) and marketing ($\beta = -0.091$, $p = 0.174$) which are found to be statistically insignificant (H_2 , H_5 , and H_6), while statistical significance is found in the estimates between the performance with managerial factors ($\beta = -0.134$, $p = 0.042$), temporary factors ($\beta = -0.266$, $p = 0.001$) and legal factors ($\beta = -0.586$, $p = 0.001$) (H_1 , H_3 , and H_4). As three constructs are insignificant and three are found significant, this does not imply much support to the theoretical model proposed from the literature review.

5 Discussion

The aim of this study being to identify the factors affecting the performance of SMEs in Yemen by building a model of the factors related to each field; the literature was investigated and 46 items related to seven assumed factors were identified. The new input factor to this is, identifying and validating the temporary factors, that play a key role in determining the performance of SMEs in Yemen – being an underdeveloped economy, is exposed to political and economic instability which largely affects the functional activities of SMEs (Saleh and Manjunath, 2020c).

The data was randomly split into two subsamples (50% each) to identify the concerned factors by applying EFA on the first sub-sample, then CFA was performed on the other sub-sample, to ensure the relationship among variables and the measurement model, SEM was performed in order to identify the causal relationship among the factors affecting the performance of SMEs. Majority of the items were dropped from the analysis, relating to finance, marketing, management and legal factors.

The findings of the study indicate; the relationship between legal factors, temporary factors, management factors and marketing factors; and the performance of SMEs being statistically significant. On the other hand, the factors related to finance and infrastructure are found to have an insignificant relationship with the performance of SMEs in Yemen. Further, the results indicate that the proposed model yielded satisfactory outcome in the measurement as well the structure model such as CFI = 0.966; GFI = 0.860; RMSEA = 0.042, and SRMR = 0.048) (Greenspoon and Saklofske, 1998; Forza and Filippini, 1998; Hair et al., 2009; Awang, 2012b; Baumgartner and Homburg, 1996; Doll et al., 1994).

The legal factors are observed to have the most significant effect on the performance of SMEs. The legal factors to include are the procedures, regulations, governance system

– which are the ones largely affecting the performance of SMEs during the recent unrest in the country since 2011. Further, corruption, administrative dropout and court system practices have been challenging for the growth of enterprises, and the current instability in Yemen has maximised their impact on the performance, especially when they should act as facilitators of investment and economic growth, they act as hindrances/obstacles (World Bank, 2018b).

The next major effect on the performance of SMEs is relating to the temporary factors, this factor has been different from the earlier observed results (Wang, 2016) which by and large focused on the financial obstacles as the most significant obstacle affecting the growth of SMEs in developing countries. The factors that have been instrumented behind such change in Yemen have been due to significant economic and political instability. Such instability in the country renders the business a challenging environment which is very much evidential from increased business relocation during the last five years, further, the rate of crime, theft and disorder increased as well.

The analysis of the sampled data exhibits the effect of financial factors and infrastructure factors on the performance of enterprises being statistically insignificant. It is interesting to observe that infrastructure and lack of access to funds – financial resources act as significant obstacles not only for enterprises in Yemen (World Bank, 2013b), but also in developing countries (Wang, 2016). The effect of temporary factors and the legal factors is found to hamper the ability and willingness of enterprises to consider funding their enterprises externally. Further, relying on funds from relatives and families (personal sources) has reduced the dependence on loans from financial institutions, which is one of the factors why the financial resources are not acting as a major challenge in the current times.

Managerial and marketing factors are the least influential factors on the performance of enterprises, as observed in previous research work (Aliriani, 2013) indicates that, majority of SMEs in Yemen lacked the formal structure and management system. Hence, it can be attributed to the lack of attention which is very much essential to be placed on managerial and marketing functions has to be restored for developing the necessary marketing and managerial capabilities in such enterprises for the purpose of enhancing the capabilities of the business enterprises. These factors were also observed in the earlier studies conducted by international organisations which identified the challenges affecting the growth and performance of enterprises in underdeveloped countries (OECD, 2009; Schwab, 2012).

The findings of this study differ from previous research from the perspective of the impact of financial factors (Falcetti et al., 2003; Ardic et al., 2011; Hay and Kamshad, 1994), infrastructure factors (Olawale and Garwe, 2010; Kelly, 2016; Obokoh and Goldman, 2016) and marketing factors (Olawale and Garwe, 2010; World Bank, 2013b); where they have identified and opined as significantly influential factors, however, the statistical evidences in the study finds they are not very significant in the Yemeni context.

6 Conclusions

Based on the findings and discussion drawn above, the following policy implications for the purpose of providing sustainability to the sector of SMEs in Yemen is proposed.

The role of the government is almost found absent in supporting the SMEs, calling for a need to improve the official role of government by establishing a supervising

authority with a specific emphasis on SMEs in the country, and ensuring an effective legislative legal system and minimising prohibiting rules and regulations, so as to enable SMEs to expand their activities and continue to contribute to the country's GDP significantly. Supporting and funding both existing and new enterprises would accelerate the growth rate, in this regard, the role of the government authorities and the institutions becomes a key factor, and such growth would create opportunities for the institutions to capitalise on available opportunities which in turn leads to social change (Wei et al., 2019).

While entrepreneurship has a limited impact on the institutions, the institutions are found to have a significant impact on entrepreneurship, as the institutions act as an essence for effectively running entrepreneurial activities (Wei et al., 2019).

The government should create and maintain a suitable environment to reduce the effect of temporary challenges on the SMEs sector such as; relocating business, crime, theft and disorder etc. during the period of instability. This initiative becomes important as more than 95% of business in Yemen consists of SMEs (World Bank, 2013b), lack of focus on this sector would deter the chances of realising growth by the enterprises and provide economic welfare for the country.

There is a need for ensuring the improvement of managerial and marketing capabilities/skills among entrepreneurs in the country, by providing essential training and support. The absence of an authority dedicated for supporting and supervising SMEs development cannot be possible. An authority through which packages for encouraging entrepreneurs to invest and grow their business activities is very essential which would contribute to the GDP and economic welfare of the country. The role that can be played by improving such capabilities on the growth, proactiveness, innovativeness and performance of SMEs has to be appreciated by the authorities/governments (Ajayi, 2016).

The implication of this research study is that it adds to the entrepreneurship literature in underdeveloped economies in the Middle East (Yemen in particular) where literature is very scant. SMEs in underdeveloped economies can benefit from the outcomes of this study with respect to effectively hedging the challenges associated with emergent and temporary factors that hamper their performance. Proprietors of SMEs and managers can develop strategies and action plans so as to manage the complexity and augment the chances of survival under instable conditions and in the absence of a conducive business environment. This can happen by directing a specific focus towards adopting skills that are relevant to succeeding in the process of fostering the business performance to achieve competitive advantage in the globally changing business environment.

Further, policy makers and development partners can benefit from the proposed model for measuring the determinants of the success/failure of SMEs. Evaluating the performance of SMEs periodically and initiating timely strategic measures is very important, especially in the context of underdeveloped economies, where SMEs are required to be extended with necessary support and ensure SMEs would contribute to socio-economic welfare.

7 Research limitation and further research scope

The limitation includes conducting the research by non-probability sampling technique, following different methods of sampling based on population records (which

unfortunately is not possible for our study) as it may yield different results. The data is collected in an unstable business environment witnessing deteriorating business, therefore, collecting data under different circumstances may again yield a different outcome from the one drawn for this study. Further, research may cover more factors to validate these results and come to a position to measure the factors influencing enterprises in Yemen or other similar underdeveloped economies.

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