


**THE PREDICTORS OF SMEs AND IN-HOUSE RECOVERY OF PANDEMIC: EMPLOYEES' PERSPECTIVE TOWARD CHALLENGES, DRIVERS AND GOVERNMENT RESPONSES FROM JORDAN CONTEXT**

Rawa Hijazi<sup>A</sup>, Mohammed Iqbal Al-Ajlouni<sup>B</sup>



ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 09 June 2023</p> <p><b>Accepted</b> 06 September 2023</p>	<p><b>Purpose:</b> This study seeks to provide evaluations of the challenges, drivers and government responses that are provided for SEMs and in-house recovery in Jordan context in time of COVID-19, from viewpoints of owners and employees of SMEs and in-house businesses.</p>
<p><b>Keywords:</b></p> <p>Challenges; Drivers; Government Responses; SMEs; In-House Employee; Jordan.</p>	<p><b>Theoretical framework:</b> This study reviews the literature for the challenges, drivers and government responses for SMEs to assemble the list that was used to gather respondents' evaluations and provide an evaluation of the SME environment in Jordan during the COVID-19 pandemic.</p>
	<p><b>Design/Methodology/Approach:</b> Using a questionnaire, data was collected for this study, purposive sampling was applied, and a sample of 1,179 provides the assessments that were used to gather the results. SPSS was used to conduct data analysis that was based on the use of descriptive analysis.</p> <p><b>Findings:</b> The findings show that owners and employees of SMEs and in-house businesses in Jordan express moderate levels of agreement toward all proposed challenges, with the exception of challenges related to market factors, which are at a high level of agreement. Additionally, all proposed drivers are at moderate levels of agreement, and the highest agreement level is for e-marketing factors.</p> <p><b>Research practical &amp; Social implications:</b> The study suggests allowing government agencies, educational institutions, donor and support organisations, and owners and employees of SMEs to adopt strategic business plans that take advantages of possible drivers and mitigate the consequences of challenges in the business environment.</p> <p><b>Originality/Value:</b> This study contributes to the emerging literature concerning SMEs during the COVID-19 pandemic by targeting owners and employees of SMEs and in-house businesses in Jordan to gather their responses regarding a set of challenges, drivers and government responses that the literature proposed as characterising the business environment during the pandemic.</p> <p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i9.3754">https://doi.org/10.26668/businessreview/2023.v8i9.3754</a></p>

**OS PREDITORES DE PME E A RECUPERAÇÃO INTERNA DA PANDEMIA: A PERSPECTIVA DOS FUNCIONÁRIOS EM RELAÇÃO AOS DESAFIOS, AOS IMPULSIONADORES E ÀS RESPOSTAS DO GOVERNO DO CONTEXTO JORDANO**

**RESUMO**

**Objetivo:** O presente estudo procura fornecer avaliações dos desafios, fatores e respostas governamentais que são fornecidos para as PME e a recuperação interna na Jordânia no contexto da COVID-19, a partir de pontos de vista de proprietários e trabalhadores de PME e empresas internas.

<sup>A</sup> PhD in Business Administration. Department of Business Administration, Al-Zaytoonah University of Jordan. Amman, Jordan. E-mail: [rawa.hijazi@zuj.edu.jo](mailto:rawa.hijazi@zuj.edu.jo) Orcid: <https://orcid.org/0000-0002-4635-5152>

<sup>B</sup> PhD in Business Administration. Department of Business Administration, Al-Zaytoonah University of Jordan. Amman, Jordan. E-mail: [m.alajlouny@zuj.edu.jo](mailto:m.alajlouny@zuj.edu.jo) Orcid: <https://orcid.org/0000-0003-3048-8230>

**Quadro teórico:** Este estudo analisa a literatura para os desafios, os fatores e as respostas do governo para as PME, a fim de reunir a lista que foi utilizada para reunir as avaliações dos respondentes e fornecer uma avaliação do ambiente das PME na Jordânia durante a pandemia de COVID-19.

**Projeto/Metodologia/Abordagem:** Utilizando um questionário, foram coletados dados para este estudo, foi aplicada amostragem intencional e uma amostra de 1.179 fornece as avaliações que foram usadas para coletar os resultados. O SPSS foi utilizado para realizar análises de dados baseadas no uso de análises descritivas.

**Constatações:** As conclusões mostram que os proprietários e empregados de PME e empresas internas na Jordânia expressam níveis moderados de concordância em relação a todos os desafios propostos, com exceção dos desafios relacionados a fatores de mercado, que estão em um alto nível de concordância. Além disso, todos os drivers propostos estão em níveis moderados de acordo, e o nível mais alto de acordo é para fatores de e-marketing.

**Implicações práticas e Sociais da investigação:** O estudo sugere permitir que agências governamentais, instituições educativas, organizações doadoras e de apoio, e proprietários e funcionários de PME adotem planos de negócios estratégicos que tirem vantagens de possíveis fatores e mitiguem as consequências dos desafios no ambiente de negócios.

**Originalidade/Valor:** Este estudo contribui para a literatura emergente sobre as PME durante a pandemia de COVID-19, visando proprietários e funcionários de PME e empresas internas na Jordânia para reunir suas respostas em relação a um conjunto de desafios, impulsionadores e respostas governamentais que a literatura propôs como caracterizando o ambiente empresarial durante a pandemia.

**Palavras-chave:** Desafios, Motores, Respostas Governamentais, PME, Funcionário Interno, Jordânia.

## LOS PREDICTORES DE LAS PYMES Y LA RECUPERACIÓN INTERNA DE LA PANDEMIA: LA PERSPECTIVA DE LOS EMPLEADOS FRENTE A LOS DESAFÍOS, LOS FACTORES IMPULSORES Y LAS RESPUESTAS GUBERNAMENTALES DESDE EL CONTEXTO DE JORDANIA

### RESUMEN

**Finalidad:** El presente estudio pretende proporcionar evaluaciones de los retos, los factores impulsores y las respuestas gubernamentales que se proporcionan a las PYMES y la recuperación interna en el contexto jordano en tiempos de COVID-19, desde los puntos de vista de los propietarios y empleados de las PYMES y las empresas internas.

**Marco teórico:** Este estudio revisa la literatura sobre los retos, los factores impulsores y las respuestas de los gobiernos para las PYMES para elaborar la lista que se utilizó para recopilar las evaluaciones de los encuestados y proporcionar una evaluación del entorno de las PYMES en Jordania durante la pandemia de COVID-19.

**Diseño/Metodología/Enfoque:** Utilizando un cuestionario, se recolectaron datos para este estudio, se aplicó un muestreo intencional, y una muestra de 1,179 proporciona las evaluaciones que se utilizaron para recoger los resultados. Se utilizó el SPSS para realizar análisis de datos que se basó en el uso de análisis descriptivo.

**Conclusiones:** Los resultados muestran que los propietarios y empleados de las PYMES y las empresas internas en Jordania expresan niveles moderados de acuerdo con todos los desafíos propuestos, con la excepción de los desafíos relacionados con los factores de mercado, que están en un alto nivel de acuerdo. Además, todos los conductores propuestos están en niveles moderados de acuerdo, y el nivel más alto de acuerdo es para los factores de e-marketing.

**Implicaciones prácticas y Sociales de la investigación:** El estudio sugiere permitir que las agencias gubernamentales, las instituciones educativas, las organizaciones donantes y de apoyo, y los propietarios y empleados de las PYME adopten planes de negocios estratégicos que aprovechen los posibles impulsores y mitiguem las consecuencias de los desafíos en el entorno empresarial.

**Originalidad/Valor:** Este estudio contribuye a la literatura emergente sobre las PYMES durante la pandemia de COVID-19 al dirigirse a propietarios y empleados de PYMES y empresas internas en Jordania para recopilar sus respuestas sobre un conjunto de desafíos, impulsores y respuestas gubernamentales que la literatura propuso como caracterización del entorno empresarial durante la pandemia.

**Palabras clave:** Desafíos, Impulsores, Respuestas del Gobierno, PYMES , Empleado Interno, Jordania.

## INTRODUCTION

Small and Medium Scale Enterprises (SMEs) are recognised as key elements for growth, particularly in developing countries (Rodrigues et al., 2021). Indeed, major contributions by SMEs are recognised in terms of employment growth and economic development (Basco, 2015; Huarng, 2018; Ngutsav & Ijirshar, 2020; Al-Ajlouni, 2021; Dweiri & Shatat, 2021; Hijazi, 2022; Rifai et al., 2022; Manvelidze et al., 2023). Waiho et al. (2020) stated that SMEs are major players in creating employment opportunities through offering business actions and functions that increase trade opportunities.

The worldwide influences of COVID-19 on the working environments of governments, health systems and businesses were unprecedented (McCloskey & Heymann, 2020; Parilla et al., 2020; Rowan & Galanakis, 2020; Sun et al., 2021; Zutshi et al., 2021). Many publications and reports described massive influences on businesses and SMEs worldwide. Ngutsav and Ijirshar (2020) considered the supply and demand struggles of SMEs, and the study by Sarkodie and Owusu (2021) discussed the development of monetary policies, fiscal measures and economic burden shares across the global economy for the private sector. Reid et al. (2020) examined cash flow stress, labour shortages and supply chain disruptions caused by the pandemic.

In Jordan, SMEs are considered a vital engine for the country's economy. SMEs constitute 98 percent of existing firms and contribute 50 percent of the total domestic production of goods. They also employ more than 60 percent of the workforce, according to Al-Tamimi and Jaradat (2019). As SMEs have a vital role in the economy and are still struggling to survive in the business environment – specifically in developing economies – it is vital to evaluate the challenges, drivers and government responses within each economy to provide more specific, practical implications for use by entrepreneurs and self-employed businesses at the country levels. This will help decision makers and other players who have roles in shaping the working environments of SMEs in Jordan to take desired actions and strategies that can aid in their survival. Robinson and Kengatharan (2020) stated that high consciousness of SME performances should be given by countries to support their growth and survival.

Islam et al. (2020), Ratnasingam et al. (2020) and Fitriasari (2020) argue that it is vital for SMEs to approach their strategies and policies in manners that will increase the likelihood of overcoming the negative consequences of the pandemic, particularly as SMEs have limited expertise and resources. In doing so, we contribute to the gap of the literature concerning the

survival of SMEs in developing economies by addressing context-specific consequences (Salamzadeh & Dana, 2021; Zutshi et al., 2021). Furthermore, we contribute to the efforts of policymakers who are trying to provide help and assistance for SMEs in Jordan in support of their roles of preserving the country's economy. In this study, we seek to address three questions:

- Question 1: What are the main challenges faced by SMEs and in-house employees in Jordan due to the consequences of COVID-19?
- Question 2: What are the main drivers for SMEs and in-house employees in Jordan due to the consequences of COVID-19?
- Question 3: What are the government responses to SMEs and in-house employees in Jordan due to the consequences of COVID-19?

This study contributes to the emerging literature concerning SMEs during the COVID-19 pandemic by targeting owners and employees of SMEs and in-house businesses in Jordan to gather their responses regarding a set of challenges, drivers and government responses that the literature proposed as characterising the business environment during the pandemic. This provides context-related recommendations and implications that can be considered by decision makers in the country. Findings of this study are expected to provide thoughtful feedback concerning the working environment of SMEs in Jordan.

## **THEORETICAL FRAMEWORK**

This study reviews the literature for the challenges, drivers and government responses for SMEs to assemble the list that was used to gather respondents' evaluations and provide an evaluation of the SME environment in Jordan during the COVID-19 pandemic. This section is structured into three sub-sections: the first gathers challenges, the second gathers drivers and the third gathers government responses.

### **Challenges for SMEs During Pandemic Consequences**

Challenges are barriers that hinder the performance, daily processes and growth of SMEs and firms. SMEs and firms usually operate in environments that are not free of barriers and challenges, but more challenges were raised during the pandemic. Table 1 gives a list of the challenges for SMEs during the pandemic, according to prior studies.

Table 1: Reported Challenges for SMEs During the Pandemic in Prior Studies

Challenge	Aspects	Source
High ambiguity and uncertainty	High ambiguity Risks surrounding business organisations High uncertainty Possibility for closedown	
Financial-related factors	Short-term financial constraints – lack of cash flows and financial liabilities due to the crisis Long-term – uncertain growth Low supply and demand Inability to pay the wages of workers Provision of prevention and public safety supplies to prevent infection with the virus Paying insurance and guaranteeing obligations	Liguori & Pittz (2020) Kebede et al. (2020)
HR-related factors	Recruiting team members Maintaining a skilled workforce at a time of economic shutdown Layoffs in the workforce Periodic evaluations during the crisis Investment decisions for training	Lu et al. (2020) Le et al. (2020) Bouey (2020) Salamzadeh & Dana (2021) Fiedler et al. (2021)
Market-related factors	Significant changes in market needs Changes in consumer behaviours High competition due to online shopping Significant decline in private consumer spending	Asgary et al. (2020) Abu Hatab et al. (2021)
High competition	High competition Possibility of new competitors entering the sector due to the low costs stemming from the digital transformation of business creation Illegal trade in the business sector Competition not limited to the local area, but also in regional and global areas due to increasing technological accessibility	Juergensen et al. (2020) Kebede et al. (2020) Priyono et al. (2020) Kumar & Ayedee (2020)
Supply chain shortage	Supply chain restrictions and breaks due to pandemic restrictions inside and outside the country Transport procedures changing according to health conditions inside and outside the country Damaged supply chains after the pandemic resulting in production reductions	Kamal (2020) Shafi et al. (2020) Okorie et al. (2020) Cepel et al. (2020)
IT development consequences	Impact of technological complexities on the business environment due to the pandemic Interruptions and shutdowns in social media platforms and business websites Hacking attempts against the social media platforms and business websites Data theft attempts against social media platforms and business websites Attempts of identity thefts against the business	
Instability in working environment	High frequency of changes in business work environment due to easy entry of competitors and suppliers derived from digital transformation Transformation of the majority of businesses into digital space due to consequences of the pandemic Constantly changing market shares due to the rapid changes in competitors in the market	
	Development process to handle changes in government instructions regulating businesses	



Regulations-related factors	Frequent changes in government instructions regulating businesses Low integration of government instructions regulating businesses	
Ambiguity in government decisions related to working environment	Constant changing of government decisions for managing business aspects during the pandemic Difficulty in predicting government decisions regarding business management decisions during the pandemic Unpredictability of returning to business shutdowns and closures during the pandemic	

Source: based on authors review of prior literature

### Drivers for SMEs During Pandemic Consequences

Drivers are opportunities for SMEs and firms to gain better performance and survival.

Table 2 gives a list of drivers for SMEs during the pandemic, according to prior studies.

Table 2: Reported Drivers for SMEs During the Pandemic in Prior Studies

Driver	Related Aspects	Source
Low cost factors	Relatively low cost of entering new markets due to digital transformation Relatively low cost of establishing new branches of businesses due to digital transformation Low cost of delivering digital products and services outside the local market due to digital transformation Low cost of acquiring global digital resources due to digital transformation	Jumar & Ayedee (2020) SYAIFULLAH et al. (2021) Fiedler et al. (2021) Asgary et al. (2020) Abu Hatab et al. (2021) Juergensen et al. (2020) Kebede et al. (2020) Kumar & Ayedee (2020)
Process automation factors	Integrated automation derived by digital transformation High efficiency in business operations derived by digital transformation	Kamal (2020) Shafi et al. (2020) Bartik et al. (2020) Okorie et al. (2020)
e-customer management factors	Ease of managing relationships with clients electronically Facilitation of maintaining relationships with clients electronically Possibility of managing relationships with a large number of clients electronically	Priyono et al. (2020) Brown & Rocha (2020) Arumugam et al. (2023)
e-marketing factors	Varied means of marketing Benefits of using social media for marketing Reaching a large segment of the targeted customers electronically through social media	
Diversify new online business lines factors	Ability to diversify lines of business production and services due to digital transformation Ability to expand products and services due to digital transformation Possibility of entering innovative service lines due to digital transformation Possibility of establishing working links with other businesses in local, regional and global markets	
	Benefit from geographically remote skilled labour	

Attracting skilled workers factors	Ability to obtain a workforce with high levels of education due to high unemployment Ability to attract various skills the business needs, even from regional or global markets	
Reducing business complexity factors	Business complexity is reduced with the use of various digital technologies Focusing on customer needs is simplified by utilising various digital technologies Managing various project relationships and processes is simplified by utilising various digital technologies	

Source: based on authors review of prior literature

### Government Responses for SMEs During Pandemic Consequences

Government responses are efforts by policymakers to provide help and assistance to SMEs to support their survival. Table 3 gives a list of reported government responses for SMEs during the pandemic, according to prior studies.

Table 3: Reported Government Responses for SMEs During the Pandemic in Prior Studies

Government response	Related Aspects	Source
Policies related to tax exemptions factors	Tax exemptions packages Tangible exemption policies Facilitated procedures to benefit from tax exemptions	
Scheduled financial loans factors	Financial loans with suitable scheduled repayment periods Facilitated procedures for obtaining scheduled financial loans No need for high guarantees to obtain scheduled financial loans	Lu et al. (2020) Biggs et al. (2012) Le et al. (2020) Gotham (2013)
Preferential policies for banks factors	Ease in managing financial transactions Facilitation in conducting banking financial transactions Preferential policies for obtaining financial loans from banks	
Capital support packages factors	Various capital support packages Facilitated procedures for obtaining capital support packages	

Source: based on authors review of prior literature

## METHODOLOGY

### Research Type

This study followed the descriptive approach by using quantitative data collected through questionnaires; this approach is recommended in situations like this study, where the subjects are unknown. The descriptive approach is a basic approach for examining a phenomenon, so this study is based on the inductive method. Prior research targeting a particular phenomenon that has scarce information has adopted this approach (Bougie & Sekaran, 2019; Buchanan & Denyer, 2013).

## Study Population

This study is based on the perceptions of owners and participants in SMEs and in-house employees in Jordan regarding the impacts of COVID-19 on Jordan's economy. In-house businesses and unregistered SMEs have vastly increased. Because this country is still in the initial stages of organising SMEs and the in-house business sector in comparison to developed economies, we neglected the condition of officially registering the businesses. Most of the SMEs and in-house employees in the country use online platforms to provide services and goods, and the official registration and licensing procedures have not yet begun, as they operate within the category of self-employment. A limitation can be noted here, as there is no official report for the exact number of unregistered SMEs and in-house employees in Jordan. Accordingly, this study applied purposive sampling to collect the largest possible sample.

## Data Collection and Screening

Data was collected using self-administered questionnaires through paper and on-line forums, and data collection took place from March 2022 to July 2022. A low responding ratio was noted for the online forum; consequently, most of the sample was collected using paper questionnaires. A total of 1,179 clear and valid responses were considered for analysis after excluding 73 invalid questionnaires. Paper questionnaires were collected through visits by the research team and by searching for SMEs and in-house businesses in most of the regional areas that could be accessed by the research team. Each time a small business or in-house business was located, a survey was delivered to the business owners and related partners after gaining their consent to participate in the study. Guidelines for completing and returning the questionnaires was presented prior to delivering the questionnaire. As questionnaires were collected, data was entered into a PC by the research team, and a sample comprising 1,179 responses was accepted for analysis. Parametric analysis was valid to use, considering that normality issues did not rise in the study based on values of kurtosis and skewness that were within the proposed range of +2.2/ -2.2, as suggested by Sposito et al. (1983).

## Analysis Methods

Data analysis was conducted using the Statistical Package for Social Sciences (SPSS) v27; analysis was based on descriptive analysis including mean, standard deviation (std.), counts and frequencies, along with bar charts.



## Instruments

Perceptions of targeted respondents toward challenges, drivers and government responses were collected using a self-administered questionnaire. Instruments were adopted from earlier studies (Abu Hatab et al., 2021; Asgary et al., 2020; Bartik et al., 2020; Bouey, 2020; Brown & Rocha, 2020; Cepel et al., 2020; Guo et al., 2020; Juergensen et al., 2020; Kumar & Ayedee, 2021; Okorie et al., 2020; Priyono et al., 2020). The design of the instrument was as follows:

- **Section 1:** Collected personal information and job occupations that were used to provide respondents' demographics and characteristics in upcoming sections.
- **Section 2:** Included instruments for each challenge, driver and government response using the Likert 5-point scale. This scale provided respondents with five agreement levels: strongly disagree had the weight of one, disagree had the weight of two, undecided had the weight of three, agree had the weight of four and strongly agree had the weight of five. The instruments' designs are displayed in Table 4 and include a total of seventy-three items.

After adopting instruments for the study aspects, fact validity was verified by experts and professionals in the field of SMEs and entrepreneurship. Most of the experts approved the content of the instruments with a few modifications requested for the language and phrasing. A language editor proofread and edited the content of the instruments in the Arabic language; subsequently, the questionnaire was valid to use.

## Statistical Reliability and Internal Consistency of Instruments

Reliability refers to the ability of an instrument to provide consistent results each time it is used in similar conditions. For the purposes of evaluating statistical stability, Cronbach's alpha coefficient was collected, which is a parameter that tests the extent to which a group of items are related to each other to form a consistent scale. A Cronbach alpha coefficient exceeding 0.6 shows adequate statistical reliability, as suggested by Sekaran and Bougie (2019). Table 4 displays Cronbach's alpha coefficients for the instruments; it was found that all the coefficients were at levels above the 0.6 level, demonstrating good statistical reliability. Therefore, the instruments were considered appropriate for the purposes of data collection for the current study.

In addition, internal consistency measures the correlations between the items of a scale and the total scale score. The statistical criteria for satisfying internal consistency require the

correlations to be positive significant relationships higher than the minimum level  $r = 0.2$  (Pallant, 2020). Referring to the results in Table 4, it was found that all instruments have adequate structural validity; all the items recorded Pearson correlations positive and significant at the level of 0.01 and exceeded the statistically acceptable minimum level  $r = 0.02$ .

Table 4: Results of statistical reliability and internal consistency (n= 1179)

Factor	Item	Correlation	Cronbach $\alpha$	Factor	Item	Correlation	Cronbach $\alpha$
High ambiguity and uncertainty	Item1	0.776**	0.653	Low cost factors	Item1	0.826**	0.826
	Item2	0.763**			Item2	0.803**	
	Item3	0.779**			Item3	0.805**	
		Item4	0.809**				
Financial-related factors	Item1	0.705**	0.726	Process automation factors	Item1	0.877**	0.845
	Item2	0.544**			Item2	0.870**	
	Item3	0.702**			Item3	0.875**	
	Item4	0.718**		e-customer management factors	Item1	0.857**	0.825
	Item5	0.665**			Item2	0.866**	
	Item6	0.613**			Item3	0.859**	
HR-related factors	Item1	0.820**	0.693	Diversify new online business lines factors	Item1	0.778**	0.790
	Item2	0.796**			Item2	0.763**	
	Item3	0.744**			Item3	0.805**	
		Item4	0.790**				
Market-related factors	Item1	0.741**	0.730	e-marketing factors	Item1	0.845**	0.817
	Item2	0.726**			Item2	0.867**	
	Item3	0.735**			Item3	0.856**	
High competition	Item1	0.718**	0.705	Attracting skilled workers factors	Item1	0.812**	0.725
	Item2	0.745**			Item2	0.819**	
	Item3	0.749**			Item3	0.781**	
	Item4	0.700**		Reducing business complexity factors	Item1	0.818**	0.744
		Item2	0.819**				
Supply chain shortage	Item1	0.879**	0.834		Item3	0.802**	
	Item2	0.863**					
	Item3	0.856**					
IT development consequences	Item1	0.844**	0.824	Policies related to tax exemptions factors	Item1	0.846**	0.845
	Item2	0.854**			Item2	0.816**	
	Item3	0.782**			Item3	0.830**	
	Item4	0.753**			Item4	0.845**	
Instability in working environment	Item1	0.759**	0.644	Scheduled financial loans factors	Item1	0.809**	0.839
	Item2	0.773**			Item2	0.831**	
	Item3	0.761**			Item3	0.810**	
					Item4	0.834**	
Regulations-related factors	Item1	0.843**	0.822	Preferential policies for banks factors	Item1	0.858**	0.818
	Item2	0.874**			Item2	0.851**	
	Item3	0.861**			Item3	0.861**	
Ambiguity in government decisions related to working environment	Item1	0.785**	0.669	Capital support packages factors	Item1	0.875**	0.853
	Item2	0.760**			Item2	0.882**	
	Item3	0.786**			Item3	0.880**	

\*\* Correlation is significant (0.01) level

Source: based on CFA results from Smart PLS program

### Personal Information and Job Occupations of Respondents

A total of 1,179 respondents enrolled in the study. Counts and frequencies for their characteristics were collected in Table 5. The sample was comprised of 782 males (66.3%) and 397 females (33.7%). Further, diversity was observed in terms of age, with the largest portion of 378 (32.1%) being of age 18 years – < 30 years, 305 (25.9%) were at age 30 years – < 40 years, 283 (24.0%) were at age 40 years – < 50 years and 213 (18.1%) were at age 50 years or more.

High education certifications were held by the majority of the sample; 672 (57.0%) held bachelor certificates, 201 (17.0%) held postgraduate certificates, 170 (14.4%) held diploma certificates and 136 [11.5%] held high school certificates or below. Meanwhile, adequate experience in regard to the number of years working at their current projects was displayed among respondents: 209 (17.7%) had worked for 1 year or less, 287 (24.3%) had worked for > 1 – < 5 years, 300 (25.4%) had worked for > 5 – < 10 years and 383 (32.5%) had worked for 10 years or more. The sample was comprised of projects of various sizes relative to the number of employees working at the project: 691 (58.6%) had 10 employees or less, 274 (23.2%) had 11 employees – < 50 employees, 68 (5.8%) had 50 employees – < 100 employees and 146 (12.4%) had 100 employees or more. Finally, the sample included businesses operating in multiple sectors, showing diversity.

Table 5: Personal and job occupations of respondents (n= 1179)

Characteristic	Group/ Sub-Group	Count [%]
<b>Gender</b>	Male	782 [66.3%]
	Female	397 [33.7%]
<b>Age</b>	18 years - < 30 years	378 [32.1%]
	30 years - < 40 years	305 [25.9%]
	40 years - < 50 years	283 [24.0%]
	50 years or more	213 [18.1%]
<b>Education level</b>	High school certificate or below	136 [11.5%]
	Diploma certificate	170 [14.4%]
	Bachelor certificate	672 [57.0%]
	Postgraduate certificate	201 [17.0%]
<b>Years of working at current project</b>	1 year or less	209 [17.7%]
	> 1 - < 5 years	287 [24.3%]
	> 5 - < 10 years	300 [25.4%]
	10 years or more	383 [32.5%]
<b>Project size [Number of employees]</b>	10 or less	691 [58.6%]
	11 employees - < 50 employees	274 [23.2%]
	50 employees - < 100 employees	68 [5.8%]
	100 employees or more	146 [12.4%]
	Advertising and Marketing	94 [8.0%]
	Media and social media	30 [2.5%]
	Services and Consultations	96 [8.1%]
	Tourism and Travel	65 [5.5%]

Sector		
	Software and applications	42 [3.6%]
	Telecommunications	30 [2.5%]
	Energy and utilities	38 [3.2%]
	Transportation and delivery	30 [2.5%]
	Insurance services	38 [3.2%]
	Financial services	52 [4.4%]
	Food products	149 [12.6%]
	Fashion and clothes	124 [10.5%]
	Tools and equipment	67 [5.7%]
	Furniture	47 [4.0%]
	Sundries and wood products	10 [0.8%]
	Plastic products	35 [3.0%]
	Cosmetic	108 [9.2%]
	Retail sale	29 [2.5%]
	Other	95 [8.1%]

Source: based on results from SPSS program

## RESULTS AND DISCUSSION

### Findings and Discussion

This section presents the findings of the study based on mean and std. values visualised in bar graphs. Assessment levels were assigned based on mean values proposed by Sekaran and Bougie (2019), as follows: Mean values range of [1 – 2.339] shows a low assessment level, mean values range of [2.34 – 3.669] shows a moderate assessment level and mean values range of [3.67 – 5.00] shows a high assessment level. Findings and discussion are broken down into three sub-sections:

#### Levels of challenges faced by SMEs and in-house employees in Jordan during COVID-19

Referring to the results in Table 6, the owners and employees of SMEs and in-house employees in Jordan expressed moderate levels of agreement toward all proposed challenges, except for the challenges related to market factors, which were at a high level of agreement and scored an overall mean value [Mean= 3.70]. Remaining challenges were at moderate levels of agreement, in the following descending order: Stability in the business environment factors [Mean= 3.65], Government decisions related to the business environment factors [Mean= 3.60], Competition factors [Mean= 3.60], Supply chain factors [Mean= 3.58], Business regulations factors [Mean= 3.50], Financial factors [Mean= 3.48], HR factors [Mean= 3.36] and Ambiguity in the business environment factors [Mean= 3.27]; the least agreement level was for Consequences of technological development factors [Mean= 3.05]. Std. values were below 1 for all factors, indicating that response spanning was clustered around mean values, except for Consequences of technological development factors, which had an std. value [Std.= 1.03], indicating disagreements in opinions among respondents.

The working environment for SMEs and in-house employees in Jordan during COVID-19 is characterised by the presence of many challenges and difficulties facing business organisations. In fact, challenges have been identified in most of the working environment aspects according to the presented results. The findings are consistent with the theoretical literature designating that crises and pandemics increase the challenges that surround business organisations in general. Due to the specificity of the challenges and circumstances imposed by the COVID-19 pandemic, it appears that this pandemic managed to affect the majority of aspects in the environments of business organisations.

Owners and employees of SMEs and in-house businesses in Jordan should unquestionably consider adopting strategies that can assist them in overcoming barriers and challenges such as those encountered during COVID-19 – particularly in relation to market-related challenges, as social distancing specifically imposed changes on the behaviour of consumers, causing their needs and buying behaviours to become troublesome. Figure 1 uses a bar graph to display the levels of challenges faced by SMEs and in-house employees in Jordan during COVID-19.

Table 6: Mean And Std. Values for Assessment Levels of Challenges Faced by SMEs and In-house Employees in Jordan During COVID-19 (n= 1179)

No.	Rank	Challenge	Mean	Std.	Assessment level
1	9	High ambiguity and uncertainty	3.27	0.88	Moderate
2	7	Financial-related factors	3.48	0.75	Moderate
3	8	HR-related factors	3.36	0.88	Moderate
4	1	Market-related factors	3.70	0.69	High
5	4	High competition	3.60	0.81	Moderate
6	5	Supply chain shortage	3.58	0.91	Moderate
7	10	IT development consequences	3.05	1.03	Moderate
8	2	Instability in working environment	3.65	0.77	Moderate
9	6	Regulations-related factors	3.50	0.92	Moderate
10	3	Ambiguity in government decisions related to working environment	3.60	0.82	Moderate

Source: based on results from SPSS program

Figure 1: Levels of challenges faced by SMEs and in-house employees in Jordan during COVID-19 using bar graph



Source: provided by authors using SPSS charts based on study results

More details to intensify our understanding of the levels for each challenge were gathered and displayed in Table 7. Displayed results show that the majority of aspects related to each challenge factor recorded evident levels of approval by the respondents. This indicates that the challenges in each aspect were not confined to one aspect, but involved several aspects, which indicates the complexity of the challenges faced by SMEs and in-house businesses. It should also be noted that the majority of the std. values were greater than level 1, indicating non-homogeneity in the respondents' assessments. This indicates that some aspects of the challenges may be at higher levels for certain SMEs and in-house businesses; accordingly, each business will need to conduct an in-depth study of the aspects of the challenges it faces in order to develop the best strategies to ensure the survival of the business.

Table 7: Mean and Std. Values for Assessment Levels of Challenge Aspects Faced by SMEs and In-house Employees in Jordan During COVID-19 (n= 1179)

No.	Rank	Item	Mean	Std.	Assessment Level
<b>High ambiguity and uncertainty</b>					
1	3	The possibility of returning to closures due to the consequences (new waves) of the pandemic casts a shadow over the business process and plans	3.15	1.26	Moderate
2	2	Uncertainty characterises the future of the business market	3.23	1.18	Moderate
3	1	Uncertainties surrounding the business work environment are increasing	3.41	0.98	Moderate
<i>Overall level</i>			<i>3.27</i>		<i>Moderate</i>
<b>Financial-related factors</b>					
1	2	In light of the consequences of the pandemic, the levels of losses and expenses for the business increased	3.73	1.06	High



2	6	The business is facing difficulty in securing the cash flows necessary for the continuation of the business operational processes	3.02	1.36	Moderate
3	4	The business is facing difficulty in repaying its financial liabilities	3.55	1.10	Moderate
4	3	Most likely, the business will not be able to achieve adequate financial growth in the long term due to the low purchasing power of customers	3.59	1.10	Moderate
5	1	The problems of inflation and economic deflation of the country surround the financial capabilities of the business	3.73	1.06	High
6	5	The business is currently dependent on government, regional and global subsidies earmarked to support business organisations	3.27	1.24	Moderate
<i>Overall level</i>			3.48		<i>Moderate</i>
<b>HR-related factors</b>					
1	3	It is difficult to attract working skills under the mediocre working conditions that the pandemic imposes on businesses	3.31	1.14	Moderate
2	2	It is difficult to keep trained working skills on the job due to the halt in business under the pandemic conditions	3.36	1.11	Moderate
3	1	Investing in workforce training under pandemic conditions is futile	3.40	1.08	Moderate
<i>Overall level</i>			3.36		<i>Moderate</i>
<b>Market-related factors</b>					
1	2	The pace of change in market needs is high under pandemic conditions	3.74	0.93	High
2	1	The pace of change in consumer behaviour is high under pandemic conditions	3.79	0.90	High
3	3	The availability of the electronic market under the conditions of the pandemic complicates the process of studying the market for the business	3.67	0.93	High
4	4	Expansion to regional and global markets is difficult in light of the openness of the electronic market under the conditions of the pandemic	3.61	0.96	Moderate
<i>Overall level</i>			3.70		<i>High</i>
<b>High competition</b>					
1	1	Competition is very high in the business sector	3.66	1.08	Moderate
2	4	The possibility of new competitors entering the sector is high due to the low costs that stem from the digital transformation of business creation	3.53	1.09	Moderate
3	3	Illegal trade exists in the business sector	3.57	1.16	Moderate
4	2	Competition is not limited to the local area, but also exists in the regional and global area due to the increasing technological openness under the conditions of the pandemic	3.63	1.11	Moderate
<i>Overall level</i>			3.60		<i>Moderate</i>
<b>Supply chain shortage</b>					
1	1	Business work is disrupted under pandemic conditions due to shortages and interruptions of some supply chains	3.60	1.05	Moderate
2	2	Access to some supply chains has become difficult under pandemic conditions	3.59	1.05	Moderate
3	3	The business options for supply chains are limited under pandemic conditions	3.56	1.05	Moderate
<i>Overall level</i>			3.58		<i>Moderate</i>
<b>IT development consequences</b>					
1	4	The social media platforms and websites of the business are subject to interruptions and shutdowns	2.97	1.30	Moderate
2	3	Electronic attacks and hacking attempts surround the social media platforms and websites of the project	3.00	1.30	Moderate

3	2	Social media platforms and project websites are vulnerable to data theft attempts	3.10	1.26	Moderate
4	1	Cyberspace attempts of identity theft of the business are high	3.14	1.25	Moderate
<i>Overall level</i>			<i>3.05</i>		<i>Moderate</i>
<b>Instability in working environment</b>					
1	3	High frequency of changes in the business work environment due to the easy entry of digital competitors and suppliers as consequences of the pandemic	3.62	1.02	Moderate
2	1	The work environment is unstable due to the low entry costs of businesses in light of the digital transformations of the majority of businesses and in light of the consequences of the pandemic	3.69	0.97	High
3	2	The market share of the business is constantly changing due to the rapid change in competitors in the market in light of the consequences of the pandemic	3.63	1.01	Moderate
<i>Overall level</i>			<i>3.65</i>		<i>Moderate</i>
<b>Regulations-related factors</b>					
1	2	Governmental regulations governing SMEs and in-house businesses are still in the process of being developed in light of the consequences of the pandemic	3.51	1.09	Moderate
2	1	Governmental instructions governing SMEs and in-house businesses are subject to change in light of the consequences of the pandemic	3.51	1.04	Moderate
3	3	Governmental instructions regulating SMEs and in-house businesses are still not integrated in some aspects of businesses in light of the consequences of the pandemic	3.48	1.08	Moderate
<i>Overall level</i>			<i>3.50</i>		<i>Moderate</i>
<b>Ambiguity in government decisions related to working environment</b>					
1	1	Government decisions for organising business-related aspects due to the consequences of the pandemic are constantly changing	3.72	0.98	High
2	2	It is difficult to predict government decisions related to organising and business processes in light of the consequences of the pandemic	3.68	1.03	High
3	3	The possibility of returning to closures is unpredictable in light of the consequences of the pandemic	3.40	1.14	Moderate
<i>Overall level</i>			<i>3.60</i>		<i>Moderate</i>

Source: based on results from SPSS program

### Levels of drivers for SMEs and in-house employees in Jordan during COVID-19

Results in Table 8 show the levels of respondents' assessments for proposed drivers. Owners and employees of SMEs and in-house employees in Jordan expressed moderate levels of agreement on all proposed drivers. Mean values for proposed drivers were seen within range at [3.66] to [3.16]. The highest agreement level was for e-marketing factors [Mean= 3.66], followed by Reducing business complexity factors [3.60], then Attracting skilled workers factors [Mean= 3.58], then Diversity of electronic business lines factors [Mean= 3.54], then Process automation factors [Mean= 3.45], then e-customer management factors [3.44]; least agreement was for Low-cost factors [Mean= 3.16]. None of the std. values were seen above 1, indicating homogeneity in assessments among respondents.

It is inferred from the previous results that the pandemic has resulted in the availability of many opportunities for SMEs and in-house businesses, and it is clear that these opportunities and drivers are available in many aspects of the business environments of organisations. Therefore, despite the many negatives and challenges imposed by the pandemic, it cannot be denied that the pandemic has created opportunities for business organisations that can improve their ability to survive in the marketplace. Some of these drivers may have already existed, but the pandemic has shed light on these opportunities. Figure 2 displays the levels of drivers for SMEs and in-house employees in Jordan during COVID-19 using a bar graph. Table 9 gives more descriptive analysis for the levels of each driver aspect.

Table 8: Mean and Std. Values for Assessment Levels of Drivers for SMEs and In-house Employees in Jordan During COVID-19 (n= 1179)

No.	Rank	Driver	Mean	Std.	Assessment level
1	7	Low cost factors	3.16	0.97	Moderate
2	5	Process automation factors	3.45	0.97	Moderate
3	6	e-customer management factors	3.44	0.91	Moderate
4	4	Diversify new online business lines factors	3.54	0.78	Moderate
5	1	e-marketing factors	3.66	0.89	Moderate
6	3	Attracting skilled workers factors	3.58	0.90	Moderate
7	2	Reducing business complexity factors	3.60	0.76	Moderate

Source: based on results from SPSS program

Figure 2: Levels of drivers for SMEs and in-house employees in Jordan during COVID-19 using bar graph



Source: provided by authors using SPSS charts based on study results

Table 9: Mean and Std. Values for Assessment Levels for Aspects of Drivers for SMEs and In-house Employees in Jordan During COVID-19 (n= 1179)

No.	Rank	Item	Mean	Std.	Assessment Level
<b>Low cost factors</b>					
1	2	The cost of entering new markets is relatively low due to digital transformation	3.17	1.20	Moderate
2	1	The cost of establishing new branches of business is relatively low due to digital transformation	3.18	1.19	Moderate
3	3	Business digital products and services can be delivered outside the local market at a relatively low cost due to digital transformation	3.16	1.20	Moderate
4	4	The cost of acquiring global digital resources is relatively low due to digital transformation	3.11	1.20	Moderate
<i>Overall level</i>			<i>3.16</i>		<i>Moderate</i>
<b>Process automation factors</b>					
1	3	Digital capabilities facilitate and provide integrated automation for the majority of business processes	3.44	1.11	Moderate
2	1	Automated business operations are accomplished with high efficiency	3.46	1.09	Moderate
3	2	Various business management operations are facilitated under digital automation	3.45	1.11	Moderate
<i>Overall level</i>			<i>3.45</i>		<i>Moderate</i>
<b>e-customer management factors</b>					
1	1	Relationships with business customers are managed electronically	3.46	1.07	Moderate
2	2	Managing relationships with customers is facilitated in light of the electronic means available to the business	3.43	1.05	Moderate
3	3	Managing relationships with a large number of customers is possible due to the use of electronic means	3.42	1.06	Moderate
<i>Overall level</i>			<i>3.44</i>		<i>Moderate</i>
<b>e-marketing factors</b>					
1	3	The business has various means of marketing	3.65	1.03	Moderate
2	1	The business takes advantage of social media for marketing	3.67	1.05	High
3	2	Marketing the business products and services electronically reaches a large segment of the target customers	3.65	1.05	Moderate
<i>Overall level</i>			<i>3.66</i>		<i>Moderate</i>
<b>Diversify new online business lines factors</b>					
1	1	Digital means enable projects to diversify their lines of business as a consequence of the pandemic	3.58	1.02	Moderate
2	3	The project can expand the products and services it provides in light of the various options offered by electronic means as a consequence of the pandemic	3.55	1.02	Moderate
3	2	Entering innovative service lines is possible for the business in light of the various options offered by electronic means, especially as a consequence of the pandemic	3.56	0.96	Moderate
4	4	As a consequence of the pandemic, the business can establish working links with other businesses at the local, regional and global levels	3.47	0.98	Moderate
<i>Overall level</i>			<i>3.54</i>		<i>Moderate</i>
<b>Attracting skilled workers factors</b>					
1	2	Technological openness has allowed the business to benefit from geographically remote skilled labour as a consequence of the pandemic	3.58	1.11	Moderate
2	1	As a consequence of the pandemic and due to high unemployment rates, the business can obtain a workforce with high levels of education	3.63	1.10	Moderate
3	3	As a consequence of the pandemic, the business is able to attract the various skills needed, even from the regional or global market	3.52	1.15	Moderate
<i>Overall level</i>			<i>3.58</i>		<i>Moderate</i>
<b>Reducing business complexity factors</b>					

1	2	Business complexity is reduced with the use of various digital technologies	3.60	0.92	Moderate
2	3	Focusing on customer needs is simpler by utilising various digital technologies	3.60	0.92	Moderate
3	1	Managing various project relationships and processes is simpler with the use of various digital technologies	3.61	0.96	Moderate
<i>Overall level</i>			<i>3.60</i>		<i>Moderate</i>

Source: based on results from SPSS program

Levels of government responses for SMEs and in-house employees in Jordan during COVID-19

Moving on to assessments related to government responses, Table 10 and Table 11 show related results. Respondents expressed moderate levels of agreement toward all proposed government responses; however, agreement levels were seen at modest levels, and mean values did not exceed [3.12], indicating a role below expectations for government responses. The highest agreement level was for Scheduled financial loans factors [Mean= 3.12], followed by Policies related to tax exemptions factors [Mean= 3.05], then Preferential policies for banks factors [Mean =2.98] and finally Capital support packages factors [Mean =2.90]. Additionally, disagreement and non-homogeneity in assessments was seen for Capital support packages factors, showing that this factor was the most troublesome factor based on assessments of respondents. Figure 3 uses a bar graph to show the levels of government responses for SMEs and in-house employees in Jordan during COVID-19.

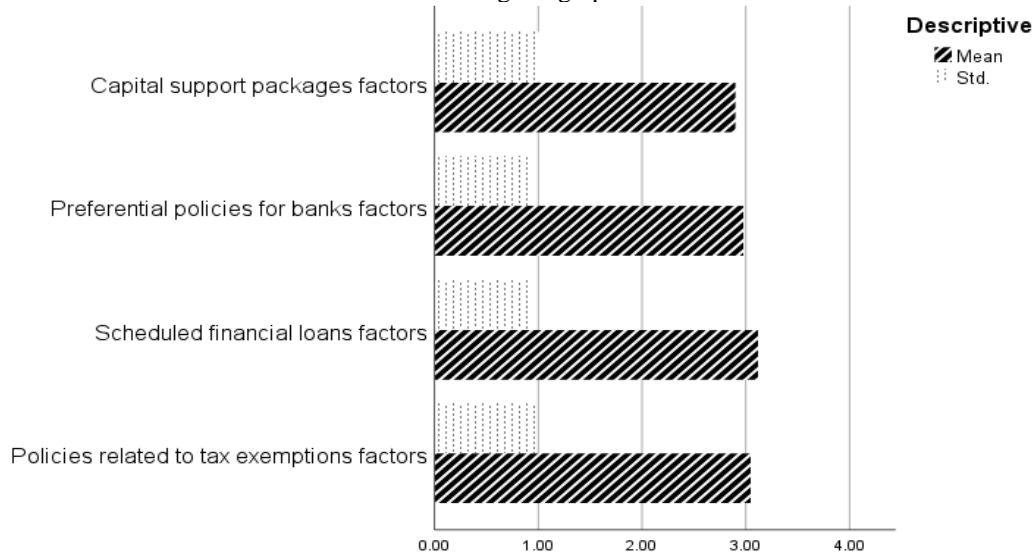
The results of the government's response factors indicate that the least levels of approval among challenges, drivers and government response factors pertained to the government aspect, especially with regard to providing financial support packages to SMEs and in-house businesses. The government's responses relating to providing scheduling for loans and some tax exemptions were better than providing tangible financial support. Therefore, the results presented by the study reflect a limited role in government responses to support SMEs and in-house businesses during the COVID-19 pandemic in Jordan.

Table 10: Mean and Std. Values for Assessment Levels of Government Responses for SMEs and In-house Employees in Jordan During COVID-19 (n= 1179)

No.	Rank	Government response	Mean	Std.	Assessment level
1	2	Policies related to tax exemptions factors	3.05	0.97	Moderate
2	1	Scheduled financial loans factors	3.12	0.90	Moderate
3	3	Preferential policies for banks factors	2.98	0.95	Moderate
4	4	Capital support packages factors	2.90	1.02	Moderate

Source: based on results from SPSS program

Figure 3: Levels of government responses for SMEs and in-house employees in Jordan during COVID-19 using bar graph



Source: provided by authors using SPSS charts based on study results

Table 11: Mean and Std. Values for Assessment Levels of Government Response Aspects for SMEs and In-house Employees in Jordan During COVID-19 (n= 1179)

No.	Rank	Item	Mean	Std.	Assessment Level
<b>Policies related to tax exemptions factors</b>					
1	3	The government has introduced tax exemption packages to help SMEs and in-house businesses during the pandemic	3.05	1.17	Moderate
2	4	Policies for tax exemptions for SMEs and in-house businesses provide tangible benefits to businesses	2.99	1.17	Moderate
3	1	Procedures are facilitated for benefitting from tax exemptions for SMEs and in-house businesses	3.09	1.15	Moderate
4	2	My business was able to obtain/benefit from tax exemptions for SMEs and in-house businesses	3.07	1.17	Moderate
<i>Overall level</i>			<i>3.05</i>		<i>Moderate</i>
<b>Scheduled financial loans factors</b>					
1	2	The financial services sector provided financial loans according to appropriately scheduled repayment periods for SMEs and in-house businesses during the pandemic period	3.12	1.12	Moderate
2	3	There have been tangible benefits for SMEs and in-house businesses from scheduled financial loans during the pandemic period	3.10	1.11	Moderate
3	1	Procedures for obtaining scheduled financial loans for SMEs and in-house businesses are facilitated	3.18	1.07	Moderate
4	4	SMEs and in-house businesses do not need difficult and high guarantees to obtain scheduled financial loans under the pandemic conditions	3.09	1.10	Moderate
<i>Overall level</i>			<i>3.12</i>		<i>Moderate</i>
<b>Preferential policies for banks factors</b>					
1	1	Banks have been inclined to give SMEs and in-house businesses a preference in conducting various financial transactions under the conditions of the pandemic	3.03	1.12	Moderate
2	2	SMEs and in-house businesses do not face difficulty in conducting banking financial transactions under the pandemic conditions	3.00	1.08	Moderate
3	3	SMEs and in-house businesses have a preference in obtaining financial loans from banks under the pandemic conditions	2.92	1.12	Moderate
<i>Overall level</i>			<i>2.98</i>		<i>Moderate</i>



<b>Capital support packages factors</b>					
1	3	The government/supporting agencies have provided various capital support packages for SMEs and in-house businesses under the pandemic conditions	2.88	1.18	Moderate
2	1	SMEs and in-house businesses have benefitted from capital support packages provided by the government/supporting agencies under the pandemic conditions	2.92	1.15	Moderate
3	2	Procedures are easy for obtaining capital support packages for SMEs and in-house businesses under pandemic conditions	2.90	1.16	Moderate
<i>Overall level</i>			<i>2.90</i>		<i>Moderate</i>

Source: based on results from SPSS program

### **Implications and Recommendations**

This study is concerned with SMEs and in-house businesses in Jordan during the COVID-19 pandemic. Evaluations of the challenges, drivers and government responses are provided based on the views and perceptions of owners and employees of SMEs and in-house businesses as reflected on self-administered questionnaires. A sample of 1,179 questionnaires delivered the assessments that were used to gather the results provided in the previous subsections.

With regard to the challenges and barriers imposed by the COVID-19 pandemic – and considering it has been found that there is a moderate level for the majority of the challenges and barriers presented – the importance of departing from the traditional method of dealing with difficulties in the business environment is exposed. The pandemic and the changes it imposed are long term, and not temporary. Some have been identified, and others may appear in the future; this indicates the need for innovative approaches in the development of work strategies.

The challenges faced by business organisations in Jordan require more interaction and efforts from various players, and this is not only limited to government agencies and business owners. The various supporting players must play their roles to assist business organisations – specifically, SMEs and in-house businesses with limited resources. Support must not be limited to financial aspects; it must go further to provide expertise and consultations that can enhance thinking capabilities, contribute to broader understanding of how to deal with the challenges in the business environment and introduce methods for developing business plans.

Conversely, the pandemic has created numerous drivers and opportunities that SMEs and in-house employee businesses can exploit to maintain their presence in the marketplace. Therefore, learning from the positive and negative aspects has become an urgent necessity for these organisations. Despite the negative aspects that business organisations witnessed such as declines in performance, changes in consumer behaviours and limited resources, the clear

emergence of various opportunities as a result of the changes imposed by the pandemic must be exploited to support the organisations' survival processes while avoiding barriers and challenges.

Diverse participants and consulting services are needed to help business organisations take advantage of the available opportunities provided as a result of the conditions imposed by the pandemic. Creative ideas and creative business planning can be taught to those in charge of SMEs and in-house employee businesses so they can profit from the new opportunities in their business environments.

Finally, the results of the government support factors show the limited role provided by the government for supporting SMEs and in-house employee businesses. The levels of approval were at higher levels regarding scheduling loans and tax exemptions but were lower pertaining to providing cash support packages, and there was a lack of consensus. These results indicate a need for more support for the SMEs and in-house employee businesses from the various interested government players and agencies. In fact, there is a need to reconsider the responses provided by the government, as it is possible to consider the experiences of certain successful economies that were able to support business organisations. Their experiences could be copied within Jordan. It is not possible to deny the limited capabilities and resources of the Jordanian state, especially in light of the pandemic, and this may be the reason for the limited responses of the government, especially in the financial aspect to support businesses. However, various players, particularly those with international relations in Jordan, can provide more efforts to attract grants and international donor organisations that can contribute towards offering tangible support packages for SMEs and in-house employee businesses in Jordan.

The results of the current study make contributions in providing a comprehensive assessment of the various challenges, drivers and government responses in the context of SMEs and in-house employee businesses in Jordan from the viewpoint of the owners and employees of the SMEs and in-house employee businesses. Those in charge of the study hope that various players, including government agencies, educational institutions, donor and support organisations and owners and employees of SMEs and in-house businesses consider the results and implications discussed herein in an effort to learn lessons from the pandemic.

This study was not free of limitations. At the start, there was a lack of an official, updated list of SMEs and in-house businesses in the country, making it troublesome to define the required sample. Further, the study was based on the results of a self-administered survey, as providing results from interviews was inappropriate due to the time available to conduct the

study. Hence, future studies are recommended that adopt the qualitative method and provide in-depth understanding. Future research should consider a framework providing analytical testing for workable solutions and survival strategies by applying appropriate analysis techniques.

## CONCLUSION

The current study provides an assessment of the various challenges, drivers and government responses that the previous studies referred to as pivotal aspects in light of the exposure of SMEs and in-house businesses worldwide to the consequences of the COVID-19 pandemic. The evaluations are the viewpoints of owners and employees of SMEs and in-house businesses in Jordan, which is a developing economy. The study reveals that owners and employees of SMEs and in-house businesses face moderate levels of barriers and are aware of the existence of possible drivers. Additionally, the participants report moderate levels of government responses to support SMEs. Accordingly, the study provides implications for those in charge of the various players who can take roles to support SMEs and in-house employees of businesses in Jordan.

## ACKNOWLEDGMENT

This research was developed from a research project titled "**Expectations to recover SMEs at COVID-19 time: a moderated model based on entrepreneurs and in-house employed survey at Jordan**". The authors of the research project are Mohammed Iqbal Al-Ajlouni and Rawa Hijazi. The research project was funded by Al-Zaytoonah University of Jordan.

## REFERENCES

- Abu Hatab, A., Lagerkvist, C. J., & Esmat, A. (2021). Risk perception and determinants in small-and medium-sized agri-food enterprises amidst the COVID-19 pandemic: Evidence from Egypt. *Agribusiness*, 37(1), 187-212.
- Al-Ajlouni, M. I. (2021). Can high-performance work systems (HPWS) promote organisational innovation? Employee perspective-taking, engagement and creativity in a moderated mediation model. *Employee Relations: The International Journal*, 43(2), 373-397.
- Arumugam, A., Bhaumik, A., & Khazaei, H. (2023). A Conceptual Framework for Studying Factors that Influence Digital Technology Adoption Among Manufacturing Sector: Leadership Effectiveness as a Mediating Variable. *International Journal of Professional Business Review*, 8(7), e02484-e02484.

Asgary, A., Ozdemir, A. I., & Özyürek, H. (2020). Small and medium enterprises and global risks: evidence from manufacturing SMEs in Turkey. *International Journal of Disaster Risk Science*, 11(1), 59-73.

Basco, R. (2015). Family business and regional development—A theoretical model of regional familiness. *Journal of Family Business Strategy*, 6(4), 259-271.

Biggs, D., Hall, C. M., & Stoeckl, N. (2012). The resilience of formal and informal tourism enterprises to disasters: reef tourism in Phuket, Thailand. *Journal of Sustainable Tourism*, 20(5), 645-665.

Bouey, J. (2020, March). Assessment of COVID-19's Impact on Small and Medium-Sized Enterprises: Implications from China: Testimony of Jennifer Bouey, Before the US House Committee on Small Business, March 10, 2020. In *RAND Corporation*. Rand Corporation.

Brown, R., & Rocha, A. (2020). Entrepreneurial uncertainty during the Covid-19 crisis: Mapping the temporal dynamics of entrepreneurial finance. *Journal of Business Venturing Insights*, 14, e00174.

Bougie, R., & Sekaran, U. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons.

Buchanan, D. A., & Denyer, D. (2013). Researching tomorrow's crisis: methodological innovations and wider implications. *International Journal of Management Reviews*, 15(2), 205-224.

Cepel, M., Gavurova, B., Dvorský, J., & Belas, J. (2020). The impact of the COVID-19 crisis on the perception of business risk in the SME segment. *Journal of International Studies*.

Dweiri, M., & Shatat, A. (2021). The effects of knowledge management and advanced technology on innovative capability. *Management Science Letters*, 11(5), 1451-1462.

Fiedler, A., Fath, B., Sinkovics, N., & Sinkovics, R. R. (2021). Exporting from a remote, open economy during Covid-19: challenges and opportunities for SMEs. *Management Perspectives on the Covid-19 Crisis*, 71-82.

Fitriasari, F. (2020). How do Small and Medium Enterprise (SME) survive the COVID-19 outbreak?. *Jurnal Inovasi Ekonomi*, 5(02).

Gerald, E., Obianuju, A., & Chukwunonso, N. (2020). Strategic agility and performance of small and medium enterprises in the phase of Covid-19 pandemic. *International Journal of Financial, Accounting, and Management*, 2(1), 41-50.

Gotham, K. F. (2013). Dilemmas of disaster zones: Tax incentives and business reinvestment in the Gulf Coast after hurricanes Katrina and Rita. *City & Community*, 12(4), 291-308.

Gregurec, I., Tomičić Furjan, M., & Tomičić-Pupek, K. (2021). The impact of COVID-19 on sustainable business models in SMEs. *Sustainability*, 13(3), 1098.

Hadi, S., & Supardi, S. (2020). Revitalization strategy for small and medium enterprises after Corona virus disease pandemic (covid-19) in Yogyakarta. *J. Xian Univ. Archit. Technol*, 12, 4068-4076.

- Hijazi, R. (2022). Knowledge-Sharing's facilitating role: innovative performance and total quality management. *International Journal of Productivity and Quality Management*, ahead-of print, doi: 10.1504/IJPQM.2021.10044423.
- Huarng, K. H. (2018). Entrepreneurship for long-term care in sharing economy. *International Entrepreneurship and Management Journal*, 14(1), 97-104.
- Islam, D. M. Z., Khalid, N., Rayeva, E., & Ahmed, U. (2020). COVID-19 and financial performance of SMEs: Examining the nexus of entrepreneurial self-efficacy, entrepreneurial resilience and innovative work behavior. *Revista Argentina de Clínica Psicológica*, 29(3), 587.
- Juergensen, J., Guimón, J., & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: assessing impact and policy responses. *Journal of Industrial and Business Economics*, 47(3), 499-510.
- Kamal, M. M. (2020). The triple-edged sword of COVID-19: understanding the use of digital technologies and the impact of productive, disruptive, and destructive nature of the pandemic. *Information systems management*, 37(4), 310-317.
- Kebede, T. A., Stave, S. E., Kattaa, M., & Prokop, M. (2020). Impact of the COVID-19 pandemic on enterprises in Jordan. *Int. Labour Organ.*
- Kumar, A., & Ayedee, D. (2021). Technology Adoption: A Solution for SMEs to Overcome Problems during COVID-19. *Forthcoming, Academy of Marketing Studies Journal*, 25(1).
- Liguori, E. W., & Pittz, T. G. (2020). Strategies for small business: Surviving and thriving in the era of COVID-19. *Journal of the International Council for Small Business*, 1(2), 106-110.
- Le, H., Nguyen, T., Ngo, C., Pham, T., & Le, T. (2020). Policy related factors affecting the survival and development of SMEs in the context of Covid 19 pandemic. *Management Science Letters*, 10(15), 3683-3692.
- Lu, Y., Wu, J., Peng, J., & Lu, L. (2020). The perceived impact of the Covid-19 epidemic: evidence from a sample of 4807 SMEs in Sichuan Province, China. *Environmental Hazards*, 19(4), 323-340.
- Manvelidze, R., Tsetskhladze, L., & Manvelidze, L. (2023). Modern Challenges and Small and Medium Enterprise Development Trends in Georgia. *International Journal of Professional Business Review*, 8(7), e02400-e02400.
- McCloskey, B., & Heymann, D. L. (2020). SARS to novel coronavirus—old lessons and new lessons. *Epidemiology & Infection*, 148.
- Moh'd AL-Tamimi, K. A., & Jaradat, M. S. (2019) THE ROLE OF SMALL MEDIUM ENTERPRISES IN REDUCING THE PROBLEM OF UNEMPLOYMENT IN JORDAN. *International Journal of Development and Economic Sustainability*, Vol.7, No.2, pp. 28-36.
- NGUTSAV, A., & IJIRSHAR, V. U. (2020). SMEs as drivers of economic recovery and sustainability during covid-19 and beyond in NIGERIA. *Journal of Economics and Allied Research*, 4(4), 234-247.

- OECD (2020). OECD Policy Responses to Coronavirus (COVID-19). Coronavirus (COVID-19): SME policy responses. Available at: <https://www.oecd.org/coronavirus/policy-responses/coronavirus-covid-19-sme-policy-responses-04440101/> Accessed in: Dec/ 2020.
- Okorie, O., Subramoniam, R., Charnley, F., Patsavellas, J., Widdifield, D., & Salonitis, K. (2020). Manufacturing in the time of COVID-19: An Assessment of Barriers and Enablers. *IEEE Engineering Management Review*, 48(3), 167-175.
- Parilla, J., Liu, S., & Whitehead, B. (2020). How local leaders can stave off a small business collapse from COVID-19. *Brookings Institution*, 3.
- Priyono, A., Moin, A., & Putri, V. N. A. O. (2020). Identifying Digital Transformation Paths in the Business Model of SMEs during the COVID-19 Pandemic. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 104.
- Ratnasingam, J., Khoo, A., Jegathesan, N., Wei, L. C., Abd Latib, H., Thanasegaran, G., ... & Amir, M. A. (2020). How are small and medium enterprises in Malaysia's furniture industry coping with COVID-19 pandemic? Early evidences from a survey and recommendations for policymakers. *BioResources*, 15(3), 5951-5964.
- Reid, G., O'Beime, N., & Gibson, N. (2020). How companies can reshape results and plan for a covid-19 recovery. Available at: [https://www.ey.com/en\\_ie/strategy-transactions/companies-can-reshape-results-and-plan-for-covid-19-recovery](https://www.ey.com/en_ie/strategy-transactions/companies-can-reshape-results-and-plan-for-covid-19-recovery) Accessed in Dec/ 2020.
- Rifai, F., Ridha, M. B., & Al-Maqousi, K. (2022). The impact of business entrepreneurship on organizational performance: an empirical study at Jordanian telecommunication companies. *Academy of Entrepreneurship Journal*, 28(1), 1-10.
- Rodrigues, M., Franco, M., Sousa, N., & Silva, R. (2021). COVID 19 and the business management crisis: an empirical study in SMEs. *Sustainability*, 13(11), 5912.
- Robinson, J., & Kengatharan, N. (2020). Exploring the effect of Covid-19 on small and medium enterprises: Early evidence from Sri Lanka. *Journal of Applied Economics & Business Research*, 10(2), 115-124.
- Rowan, N. J., & Galanakis, C. M. (2020). Unlocking challenges and opportunities presented by COVID-19 pandemic for cross-cutting disruption in agri-food and green deal innovations: Quo Vadis?. *Science of the Total Environment*, 748, 141362.
- Salamzadeh, A., & Dana, L. P. (2021). The coronavirus (COVID-19) pandemic: challenges among Iranian startups. *Journal of Small Business & Entrepreneurship*, 33(5), 489-512.
- Sarkodie, S. A., & Owusu, P. A. (2021). Global assessment of environment, health and economic impact of the novel coronavirus (COVID-19). *Environment, Development and Sustainability*, 23(4), 5005-5015.
- Shafi, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan. *Research in Globalization*, 2, 100018.



Sposito, V. A., Hand, M. L., & Skarpness, B. (1983). On the efficiency of using the sample kurtosis in selecting optimal lpestimators. *Communications in Statistics-simulation and Computation*, 12(3), 265-272.

Sun, T., Zhang, W. W., Dinca, M. S., & Raza, M. (2021). Determining the impact of Covid-19 on the business norms and performance of SMEs in China. *Economic Research-Ekonomiska Istraživanja*, 1-20.

Waiho, K., Fazhan, H., Ishak, S. D., Kasan, N. A., Liew, H. J., Norainy, M. H., & Ikhwanuddin, M. (2020). Potential impacts of COVID-19 on the aquaculture sector of Malaysia and its coping strategies. *Aquaculture Reports*, 18, 100450.

Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *The lancet*, 395(10223), 470-473.

Zutshi, A., Mendy, J., Sharma, G. D., Thomas, A., & Sarker, T. (2021). From challenges to creativity: enhancing SMEs' resilience in the context of COVID-19. *Sustainability*, 13(12), 6542.