

# Tailored Resilient Strategies for Business Continuity of SMEs in the MENA Region

Ismat Abbas\*

## Abstract

**Purpose:** The main aim of the study was to investigate tailored resilient strategies for business continuity of SMEs in the MENA region (MENA stands for the group of countries situated in and around the Middle East and North Africa, referring to the countries between Iran in the East and Tunisia and Morocco in the West, including 19 countries). The changing macro-environmental paradigms in the MENA region resulting from many factors, such as political tensions, regional conflicts, terrorism, changing patterns, and other social problems, have significantly affected the strategies of the businesses in the small and medium enterprises market. These factors have begun exerting pressure on the SMEs, requiring them to adopt tailor-made strategies to show their resilience for the continuity of their businesses. The current investigation tends to identify the type of design strategies adopted by these SMEs and their impacts on the link with different types of business risks and in their pursuit of sustainable continuity.

**Keywords:** ITailored Resilient Strategies, Sustainable Continuity, SMEs, MENA, Business Continuity, Data-Driven Risks, Business-Driven Risks, Event-Driven Risks

## Introduction

Recently, there has been a heavy debate in international literature on the positive relationship between the resilience strategies and business continuity, where business resilience and business continuity are two key business management concepts. Resilience is used to refer to the flexible approach to accommodate the market changes adversely affecting business continuity. Business

continuity is defined as the process of projecting incidents, capable of pacing adverse effects on the critical functions and activities of a business. SMEs in the MENA region (covering a grouping of countries situated in and around the Middle East and North Africa, including 19 countries situated between Iran in the East and Tunisia and Morocco in the West) have started to adopt tailored strategies to develop strong resilience against the seen and unseen risks to business continuity, based on their exposure to the risk and macro-environmental considerations. In this paper, we aim to further discuss those two important business management concepts to have a better understanding of the status of the MENA region SMEs adopting tailored resilient strategies for business continuity.

## Problem Statement

Resilience refers to the ability to adapt and the ability to recover from a challenging situation and adversity (Zolli & Healy, 2013). SMEs in the MENA region have started to trigger heavy attention from public authorities, financial companies, and investors in recent years, due to their increased ability to serve as a basis for job creation and innovation in the region. The internal and external stakeholders have started to recognise the role of SMEs in achieving the targets of the industrial revolution under way. Large organisations in MENA aim to capitalise themselves on the huge potential of SMEs. Such growth prospects for SMEs also expose them to several challenges. The prominent challenges consist of financial constraints, technological risks, lack of human capabilities, supply chain relationship management, time constraints, and legal problems (Khaleej Times, 2018). In addition, the age of cyber business, and management of data and information sources from the cybercriminals also pose challenges to the business continuity (Abdel-Meguid,

\* Email: [abbas.ismat@outlook.com](mailto:abbas.ismat@outlook.com)

2017). Establishing and managing businesses, specifically for the small and medium enterprises within the MENA region, is considered challenging in the presence of ever-changing micro-environmental factors. The increased political tensions, regional conflicts, terrorism, changing climatic patterns, and other socio-economic problems are contributing vitally in adversely affecting the ways businesses need to structure themselves. For business continuity, organisations need not only focus on economic resilient techniques, but also on a collaborative and an all-inclusive approach. Consequently, instead of pursuing a specific theoretical model or generally pursuing a resilient strategy for dealing with the identified issues, many of the SMEs have started tailoring their own resilient strategies for business continuity. Therefore, these SMEs have started shaping their own strategies for dealing with the economic, political, social, legal, and technological resilience (Bourletidis & Triantafyllopoulos, 2014).

Therefore, this research paper identifies this opportunity to explore in-depth findings related to the tailored resilient strategies used by the SMEs in the MENA region, with an assessment of their impacts on business continuity. The scope of the research is not limited to any specific type of challenge, rather an all-inclusive approach towards resilience is covered.

## Research Objective

The main aim of the research is to investigate tailored resilient strategies for business continuity of SMEs in the MENA region. For the successful accomplishment of the state, a set of research objectives is listed below:

- To investigate the concepts behind the business's resilience.
- To examine the different types of resilient strategies available to the SMEs.
- To identify the tailored resilient strategies used by the SMEs in the MENA region.
- To evaluate the relationship between the tailored resilient strategies and within the SMEs in the MENA region.

## Research Questions

The following research question helps in setting up a context for the research paper:

- Which tailored resilient strategies are used by the SMEs in the MENA region for increasing business continuity?

Findings of the research are expected to help in both theoretical and empirical manner, by summarising the existing tailored resilient strategies for the MENA SMEs. Furthermore, the conclusions would form a base for future investigations by upcoming researchers, for subsequent evaluation of SMEs resilience over the passage of time.

## Literature Review

This section covers the literature review, explaining how the concepts of business resilience and business continuity are examined in the international business management literature, to make the case for MENA region.

### Business Resilience and Business Continuity

Academic researchers (Sawalha & Anchor, 2012; Zolli & Healy, 2013) have been defining business resilience as a way to stay adaptive to the changing market environments. In simple words, the term resilience is used to refer to the flexible approach to accommodate the market changes adversely affecting business continuity. However, many researchers define business resilience as an ability of the business to recover from the crisis and shape itself back to the pre-crisis state. Both adaptabilities as well as recoverability can be used alternatively to indicate the capabilities of the business organisations to strongly stand and gain rather than lose in the times of business disturbances (Sawalha & Anchor, 2012).

On the other hand, business continuity is defined as the process of projecting incidents, capable of pacing adverse effects on the critical functions and activities of a business, with a view to ensuring appropriate responses against such incidents (Ingirige & Wedawatta, 2018). MioKato and Charoenrat (2018) have stressed on the 'planned nature' of business continuity by highlighting that the organisational responses to the forecasted and risk-adverse events need to be continuously rehearsed within the organisation, for the effective implementation at the time of real incidents.

Similarly, there has been a heavy debate in the international literature on the positive relationship between the resilience strategies and business continuity. The

effect of the resilient strategies can be traced to the long-term stakeholders' management (Ingirige & Wedawatta, 2018; Wright, 2013; Sawalha & Anchor, 2012). Wright (2013) has stated that when the organisation is able to demonstrate itself as highly resilient and not vulnerable to the new threats, change risks, and change resources, it is directly able to gain the confidence and commitment of the stakeholders, supply chain members and customers. In contrast, Wright (2013) has shown that failure to show resilience ultimately raises the questions on the continuity of the business in front of the supply chain members.

Subsequent to the conceptual understanding of the two key business management concepts, such as business resilience and business continuity, the next subsection of the literature review provides a critical analysis of the available tailored design strategies to be used within the MENA SMEs.

### Tailored Resilience Strategies in MENA SMEs

MENA, in terms of geographical statistics, refers to the highest global regions, comprised of the Middle East and North African countries. Hence, the group of SMEs operating in this region have adopted the multi-definition of diverse strategies to develop strong resilience against the seen and unseen risks to business continuity. These resilience strategies are discussed below.

#### Business Continuity Management

Business continuity management (BCM) is one of the systematically tailored strategies used by the small and medium enterprises worldwide, specifically within the MENA region, to develop engagement of the people internal and external to the business. According to Sawalha and Anchor (2012), BCM offers development of strong connectivity and linkage between the organisation and industries. Sawalha and Anchor (2012) have researched the application of the BCM approach within the emerging middle markets, mainly Jordan. According to the researchers, the Middle Eastern region has been characterised as highly risky, dynamic, fast-changing, and politically unstable. Consequently, the responsibilities of the SMEs in such an economy due to the presence of projectable as well as unpredictable risks is vital. Jordanian SMEs have therefore adopted BCM training

and simulation tests for helping the management and all the stakeholders develop resilience against natural disasters, technological hazards, and economic shocks. However, in critically appraising the effectiveness of the strategy, researchers have indicated that the strong need for collaboration from the local stakeholders, including the government, the private sector, and the community people, is indispensable. Ghandour (2014) added to this discussion by presenting the case of SMEs in the United Arab Emirates. He found the integration of the methods, practices, and tangible and intangible resources necessary for the development of resilience against any type of disaster. In simple words, the researcher tends to emphasise on the need to update existing financial and non-financial resources to deal with the disasters and to help the business in returning to its normal operations after recovery. Dahlberg and Guay (2015) have further explained that resilience for the SMEs in a highly changing region like MENA cannot be created without focus on the interdependent relationship between the players in the business at work. According to him, SMEs cannot operate as independent business entities, and require interaction with the stakeholders in the network continuously for appropriate and result-oriented outcomes.

On the contrary, Vargo and Seville (2011) have criticised the use of business continuity management/business entity planning within the SMEs, as not every SME is given the chance of projecting and planning the entire framework for dealing with the projected disasters in a structured way. Some of the biggest constraints in their implementation path are related to the lack of expertise, financial limitations, and non-availability of technical and personnel resources.

#### Business Analytics

Another important strategy used as a source of gaining a competitive advantage by the small and medium enterprises in the MENA region is business analytics. In investigating the stage of business analytics within the technological and globalised commercial environment within MENA countries, Choughri and Soubjaki (2017) have added that BA has been adopted by most of SMEs in the region. However, he further argued on the dependencies of the SME to better credit accessibility in the process of adopting business analytics strategies.

Business analytics is defined as “a broad use of various quantitative techniques such as statistics, data mining, database structure, optimization tools, and simulation supported by the query and reporting mechanism to assist decision-makers in making more informed decisions within a closed-loop framework seeking continuous process improvement through monitoring and learning” (Min, 2016, p. 1). Choughri and Soubjaki (2017) have reported that SMEs have started using tailored business analytics approach for finding out the solutions to different projected problems, mainly in the economic and social contexts such as employment, innovation, power, environmental preservation, and sustainable economies growth. By using their in-house information with external information through business analytics, these companies are able to identify the key success factors and shape the cultural relationships between them. Such analytics ultimately drive their SMEs towards the accomplishment of financial performances as well as overall organisational goals. Like MENA, international SMEs have also started adopting technological solutions only, including data as well as quantitative solutions to deal with the new technological risks. In a similar context, the roles of big data and advanced analytics have been recognised significantly in the literature (Lin, 2014).

In a related context, Doherty et al. (2013) have criticised the obstacles faced by the SMEs in MENA, restricting the optimal implementation of business analytics. The range of obstacles these researchers have identified included less optimised processes, poor information management, inadequate implementation of information technology solutions, worse risk and data management processes, improper management of financial resources, and poor knowledge management. In simple words, the SME, compared to large organisations, encountered numerous IT-related challenges, which further restrict the adoption of IT-related solutions to develop strong resilience.

### Risk Management Strategies

Besides, a comprehensive risk management approach is also used by the SMEs in the MENA region, based on their respective needs. According to Vargo and Seville (2011), the SMEs which are not able to adopt a comprehensive and detailed plan for disasters and risk management approach contribute vitally in setting a proactive approach towards

the disasters. Theoretical researchers have described risk management strategies based on five types of risk responses, such as risk assessment, risk acceptance, risk avoidance, risk reduction, and risk transfer. Likewise, most of the SMEs in the MENA region adopt risk management approach, where initial risk metrics are designed to project the likelihood and impact of different types of risks; such projections are further used to privatise the available resources for setting out contingencies (Bourletidis & Triantafyllopoulos, 2014).

### IT-Based Disaster Recovery

Furthermore, IT-based disaster recovery is also available within the MENA region for helping the SMEs recover from the after-effects of natural disasters. The rapid urbanisation and the growing population in smart cities of MENA have started pressurising the business organisations to pursue technology-based solutions for dealing with the climatic and natural disasters. Based on the case of Abu Dhabi Smart City, Hassan and Mohammed (2017) have reported the use of IT disaster recovery framework to aid the recovery of IT resources at the time of disaster, thus securing IT services continuity. Likewise, SMEs are also pursuing an IT continuity approach to continue their services, mainly data information management, during the crisis as well. However, according to Hassan & Mohammed (2017), service continuity during a disaster can only be possible with strong administrative procedures and policies.

### Financial Resilience Strategies

Likewise, the SMEs in the UAE have been involved in planning for dealing with financial crisis through collaboration with the public and private investors. SMEs in the regions have directed concentration on network building to have strong financial mechanisms for the disasters and risks. However, most of them in the emerging and underdeveloped economies need to struggle a lot to gain access to financial resources. In other words, the situation is only in the underdeveloped economies in the MENA region, where policymakers and regulators have also keen interests due to their ability to pay back to the economy. According to the researchers Bourletidis and Triantafyllopoulos (2014), the underdeveloped economies in the MENA region possess considerable



challenges for the start-ups in the SME sector. According to them, lack of finance is the major contributor of weaker resilience and lower expectations for business continuity in these regions. To deal with such situations, many of the SMEs have started developing finance funds with the help of private investors to promote capacity building during the difficult times.

In summarising the literature reviewed for investigating the business resilience strategies of the SMEs in the MENA region, it can be concluded that the modern medium and small enterprises have become knowledgeable and creative in devising tailor-made solutions for environmental problems. These tailor-made strategies are capable of resolving the financial as well as operational level risks and threats within the internal and external environments. The resilience strategies in the literature section included business continuity management, business analytics, risk management, IT-based disaster recovery, and financial resilience strategies. The strategies are used to prevent and protect the business from natural disasters as well as the consequences of business market disturbances. Hence, these findings can be used to substantiate the practical and real-life experiences of the primary respondents from the MENA region. The next section in the research paper presents the chosen research methodology.

## Research Methodology

No research can achieve its aims and objectives successfully in a timely manner without pursuing a comprehensive and well-structured methodological framework. In a similar context, an interpretive paradigm is selected. The interpretive paradigm allows the researcher to observe and analyse the under-investigated phenomena with the perceptions and experiences of other researchers or participants. Interpretive researchers follow existing experiences for the construction of their personal understanding (Antwi & Kasim, 2015). The chosen research articles in the current research paper have allowed the researcher to assemble valuable findings in a range of tailored resilience strategies for the SMEs in the MENA region. However, the interpretive approach requires great consideration from the researcher to interpret without losing the original meaning of the content. For this reason, direct responses from the

experienced individuals from the MENA region would ultimately assist in substantiating the literature. Therefore, the interpretive method would help in integrating the findings of the primary and secondary investigations simultaneously.

## Sampling Design

An appropriate sampling design is also inevitable for the appropriate research conclusions. Relatively too small or too large a sample size can deteriorate the quality of the findings in front of the audience. Sampling design in this paper is categorised into sample size and sampling technique. Sample size refers to the number of people, objects, or institutions sharing the same attributes, withdrawn from the entire population of these research subjects. For the purpose of this research paper, the SME business owners in the MENA region formed the sample of primary research respondents.

On the other hand, sampling technique refers to the method of withdrawing appropriate sample size from the population. Generally, random and non-random sampling techniques are two alternatives used in business management studies, where the former refers to the withdrawing of samples in a non-structured fashion through computerisation. Every  $n^{\text{th}}$  item in the continuously shuffling sample is withdrawn from the population, allowing equal chance of participation to everyone in the list. First, the sample of 50 business owners was selected to carry out the investigation. On the contrary, the latter technique of non-random sampling refers to the purposive approach of choosing specific people, items, and institutions, capable of responding to the desired queries. For selecting business owners from the SMEs in the MENA region, non-random sampling technique was used to allow the people from different sectors and industries without any limitation for inclusion based on the business type and scale.

## Research Design

To maintain consistency between the research paradigm, and research aim and objectives, the quantitative design was selected. According to Thanh and Thanh (2015), “Quantitative methods emphasise objective measurements

and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and survey". The survey research strategy was identified as feasible for gathering the information about business resilience strategies of SMEs in a quantitative fashion, by targeting the business owners who have themselves been a part of similar social or business fabrics (Thanh & Thanh, 2015). The purpose of current research if focused on qualitative design, i.e., detailed discussion about the motivations, perceptions, feelings, and experiences of the business owners, would have required more time and effort. Additionally, most of the business owners face difficulty in setting aside additional time for a researcher in addition to their normal business responsibilities.

Statistics might not have resulted in appropriate findings of the tailored resilient strategies of the MENA SMEs. Therefore, quantitative design and approach were used to collect and analyse research findings. In contrast, the alternative qualitative design might have limited the interpretive researchers to gain an in-depth insight of the research issue in a set of small interview sessions. On the other hand, quantitative design is for a specific set of numbers and statistics. The objectivity of the qualitative design in this research paper was helpful in gaining specific responses for the broader set of possible resilience strategies, and its ability to direct the focus of the investigation on the broader macro-economic issues, and the tailored resilient strategies to deal with such issues were consistent with the research purpose (O'Dwyer & Bernauer, 2013).

### **Data Collection Process**

The survey research instrument was used to gather the findings from the primary respondents using a set of structured survey questions and the predefined set of responses. An online survey was conducted among the sample of business owners who were approached through emails after searching for their contacts using their official websites. The survey instrument comprised of 15 structured questions, including demographic details of the respondents and study-related questions. Furthermore, a Likert response scale was used to gather the findings (strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree) (Ponto, 2015).

The demographic details included age, gender, experience, educational qualification, type of industry, type of sector, and country of origin. In the second section, aspects of tailored resilient strategies for business continuity of SMEs in the MENA region are taken into account. Participants were sent the unfilled survey instrument and were given one week's time to return the filled survey form via email. To stay safe, 55 business owners were sent survey instruments, as generally there is always a margin of unfilled, wrongly filled, or incompletely filled forms. However, in conducting the primary investigation, the range of ethical considerations were also taken into account, which increased the credibility of the findings, such as privacy and confidentiality, informed consent, voluntary participation, and originality.

Besides, the secondary data was collected from the review of scholarly books, journal articles, previous research papers, and regulatory and policy guides and directions. Reliability and validity of the research sources were taken into account before extracting the findings from it. Complete referencing and citation guidelines were followed to avoid the academic offence of plagiarism.

The next section presents and critically analyses the findings gathered from the survey of business owners in the SMEs of the MENA region.

## **Findings and Discussion**

### **Section A: Demographic Details of Business Owners**

The findings of the demographic data gathered from the SME business owners in the MENA region have shown the key insights necessary to understand the factors behind shaping the perceptions of the business owners. These results have revealed that out of 50 respondents, a large percentage of the business owners were between 31 and 40 years old (30%), were undergraduates (64%), were male (88%), had 6 to 10 years' experience (72%), were from Middle Eastern countries (60%), were in the public sector (50%), and were in the manufacturing industry (30%). The demographic factors can assist in understanding the current range in the SME business

market in the MENA region.

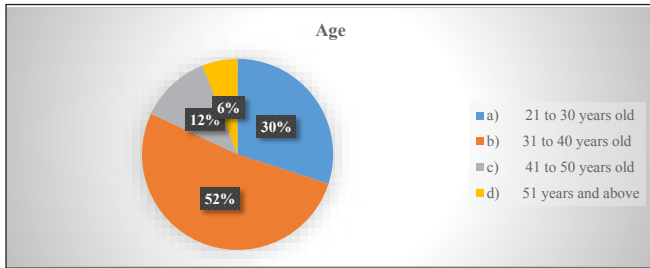


Fig. 1: Survey Respondents' Age

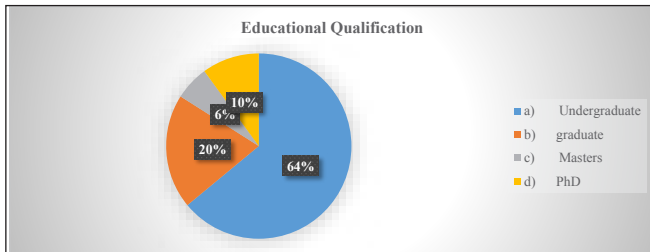


Fig. 2: Survey Respondents' Educational Qualification

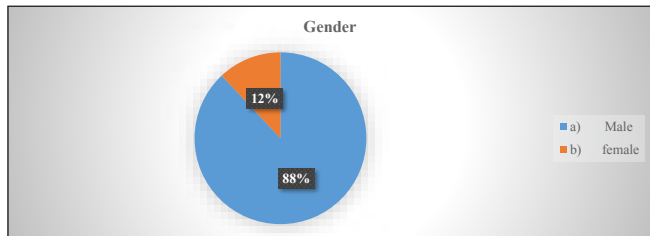


Fig. 3: Survey Respondents' Gender

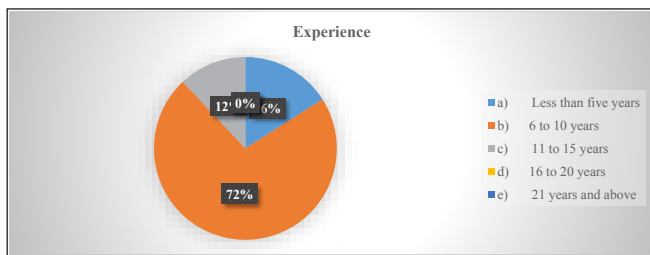


Fig. 4: Survey Respondents' Experience

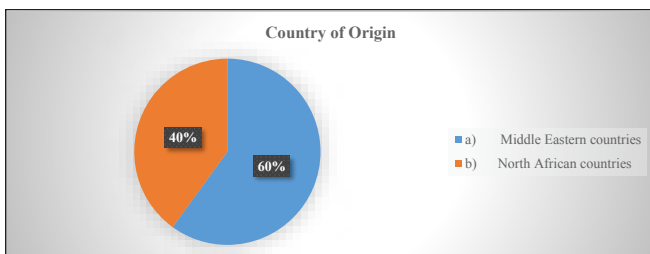


Fig. 5: Survey Respondents' Country of Origin

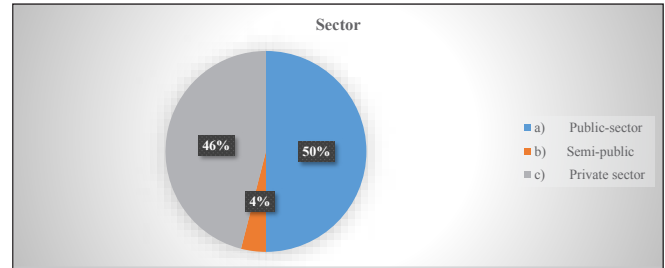


Fig. 6: Survey Respondents' Sector

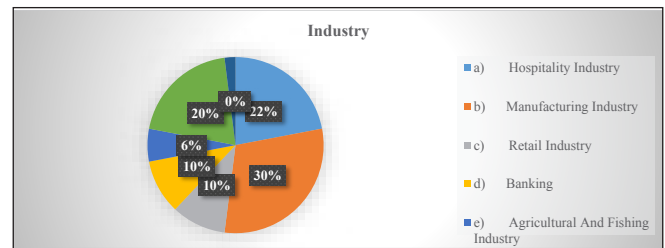


Fig. 7: Survey Respondents' Industry

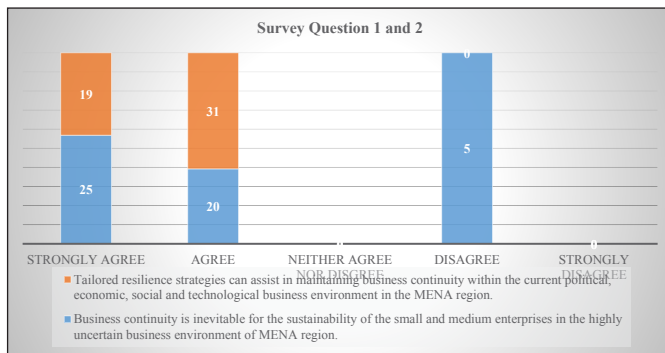
## Section B: Study-Related Questions

This section helped in the accomplishment of five research objectives set in the introduction section, restated below. Survey questions 1 and 2 addressed the research objective 1, survey questions 3 to 6 addressed research objective 2, and survey questions 7 to 15 addressed research objectives 3 and 4.

- To investigate the concepts behind the business's resilience.
- To examine the different types of resilient strategies available to the SMEs.
- To identify the tailored resilient strategies used by the SMEs in the MENA region.
- To evaluate the relationship between the tailored resilient strategies and the SMEs in the MENA region.

Findings have revealed that the business owners from the MENA region indicated that risk and threats to their SMEs mainly result from top to bottom business components, to cover all the disruptive events. These may include risks associated with the strategy and vision, organisation processes applications, and data technology facilities. The business owners in the SMEs in the

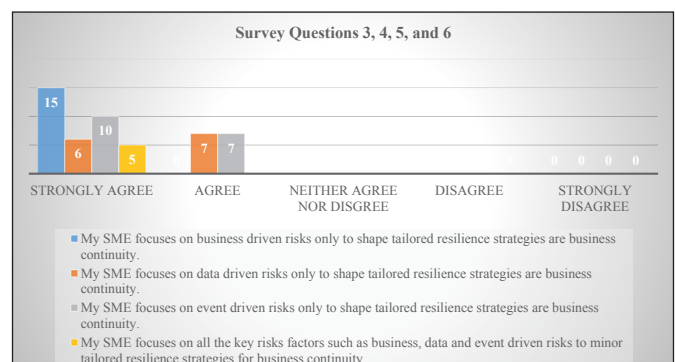
MENA region are focused on three types of risks while tailoring their resilience strategies for business continuity – business-driven, data-driven, and event-driven risks. However, the preference in creating tailored strategies is given to the event-driven risks, such as power outages, natural disasters, fire safety, physical threats, and other risks associated with the facilities as well as IT systems. It can be depicted that the SMEs in the MENA region are inclined towards the protection of their marketing and management dimensions relative to the data-driven risks. These findings have highlighted that in comparison to the international world, SMEs in the MENA region are in the initial stages of increasing their awareness about the impacts of risks and losses associated with the critical organisational information and IT systems. Currently, virtual threats are not given much value while designing their resilience strategies. These findings are contrary to the academic literature review in section 5, where IT-related strategies are considered as one of the core components of the tailored resilience strategies for discontinuity (Choughri & Soubjaki, 2017; Hassan & Mohammed, 2017).



**Fig. 8: Survey Respondents’ View of Tailored Resilience Strategies for Business Continuity**

Additionally, the business owners in the SMEs were also enquired about the different types of risks mainly focused on while tailoring their resilience strategies. For this purpose, three different types of risks were included in the question, such as business-driven, data-driven, and event-driven risks. Comparatively, business-driven risks are considered vital in shaping the resilience strategies. Business-driven risks are defined as ones that are necessary to be controlled to have effective management and marketing perspectives to gain a sustainable reputation among the stakeholders. SMEs in the MENA region are

in the developmental stages compared to the international world, and consequently, they mainly focus on business-driven risks, followed by event-driven risks. Event-driven risks are associated with natural disasters such as flood, fire, and power failure. The focus of SMEs in the MENA region on data-driven risk is minor, although data-driven risks is internationally found to be as vital as business- and event-driven risks. In a similar context, only 12 MENA SMEs agreed that the focus was on all the key risk factors while designing their tailored strategies for business continuity. It can be depicted from the academic literature that organisations aiming for a sustainable future and survival in the highly sensitive macro and micro environments need to have an integrated focus on different types of risks emerging from different business companies. Likewise, these organisations use their knowledge in different ways while devising preventive strategies and proactive measures in the form of different resilient business continuity strategies.

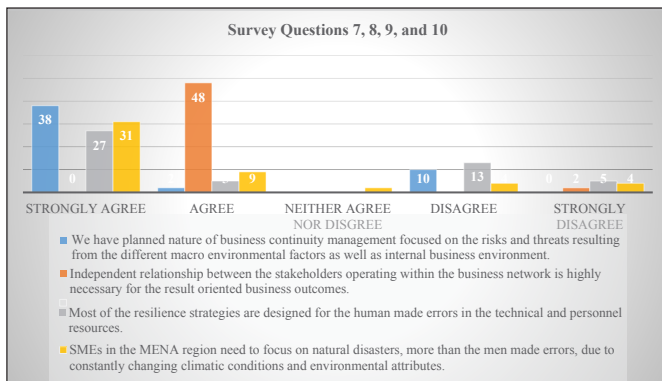


**Fig. 9: Survey Respondents’ View of Risk Types to be Focused on for Tailoring Resilience Strategies**

Moreover, in questions 7, 8, 9, and 10, the primary investigation did focus on the respondent’s views about the right team provided in their SMEs for fabricated and natural disasters. Fortunately, there has been an increase in the SMEs’ focus on the integrated stakeholder approach. SMEs have started planning their business continuity management, focusing on the risks and threats resulting from the different macro-environmental factors and internal business environment. However, still, the main purpose of the organisation is towards the technical and personnel resource monitoring and management. On the contrary, the international organisations in the small and medium enterprise market are constantly focusing on the IT and data-driven policies and practices. Cyber risks



have turned out to be one of the key threats encountered by business organisations in the modern world. Therefore, in this environment, SMEs going virtual or using technological sources for the storage, retrieval, and management of their data and information sources need to have strong protection and resilience against the data services. Information security is necessary for the protection of business secrets and stakeholders' information from the outsiders. Choughri and Soubjaki (2017), in their research, explained the importance of using emerging technological quantitative methods for tracking business scenario, to project new technological risks associated with business continuity. In fact, SMEs in the MENA region should consider the suggestions given by the researcher (Min, 2016) stating the need to integrate a variety of various quantitative techniques such as statistics, data mining, database structure, and optimisation tools to seek continuous process improvement. In contrast, the business owners did confirm that most of the business organisations are focusing on the natural disasters-based recovery system rather than projecting and statistically majoring the risk profiles, with the occurrence, intensity, and impact levels to identify them before the occurrence of such risks.

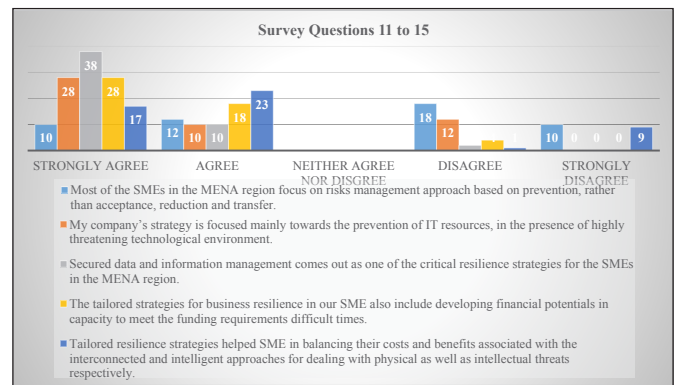


**Fig. 10: Survey Respondents' Views on Priority of Man-Made and Natural Disasters**

Furthermore, the findings gathered for the questions 11 to 15 have further revealed that the resilience strategies used by the SMEs in the MENA region are not to a greater extent in line with the approaches used in the international world. Most of the companies questioned have a tendency towards the prevention of IT resources in the presence of a threatening technological environment; secured data and information management are two of the critical resilience strategies for those companies situated

in the MENA region. A few agreed that risk management should be based on prevention rather than acceptance, reduction, and transfer; therefore, advance preparation is not considered as vital by most of the SMEs in the MENA region. The focus is on dealing with the risks upon their occurrence.

Despite this, the results are considered significant for the current resilience strategies for business continuity. Tailored resilience strategies are considered helpful to SMEs in balancing costs and are beneficial in the matter of interconnected and intelligent approaches for dealing with physical as well as intellectual threats. However, such an approach is not suitable for business continuity in the highly changing business environment. Currently, the business owners are using risk management based on reactive approach rather than a preventive approach, as an equivalent portion of business owners agreed as well as disagreed with the use of a preventive approach in their resilience strategies. Yet, these SMEs have started focusing on extending their views towards the comprehensive resilience strategies for assuring secure data information management system, financial potentials, and keeping the balance between the physical and intellectual threats.



**Fig. 11: Survey Respondents' View of Types of Resilience Strategies**

## Conclusion

This investigation has identified that resilience and resilience strategies used by the SMEs in the MENA region are focused on three types of risks – business-driven, data-driven, and event-driven risks – by planning strategies in accordance with the risks and threats resulting from different macro-environmental factors and internal

business environment. Business owners from the MENA region indicated that risk and threats to their SMEs mainly result from top to bottom business components. There has been an increase in the SMEs' focus on the integrated stakeholder approach in developing resilient business continuity strategies. This study showed that cyber risks have turned out to be one of the key threats encountered by the business organisations in the modern world. Information security is necessary for the protection of business secrets and stakeholders' information from the outsiders, while focusing at the same time on the natural disasters-based recovery system, where an organisation should be projecting and statistically majoring the risk profiles, with the occurrence, intensity, and impact levels to identify them before the occurrence of such risks. This approach used by SMEs in the MENA region is not suitable for business continuity in the highly changing business environment. Hence, the focus should be placed on data-driven and IT-based resilience, similar to the strategies created for the protection of physical business resources from the different projectable as well as unpredictable types of business risks and threats.

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## Appendix: Survey Instrument

### Section A: Demographic Details

What is your age?

- a) 21 to 30 years old
- b) 31 to 40 years old
- c) 41 to 50 years old
- d) 51 years and above

What is your gender?

- a) Male
- b) Female

What is your educational qualification?

- a) Undergraduate
- b) Graduate
- c) Master's
- d) Ph.D.

For how many years have you been operating within the SMEs business market in the MENA region?

- a) Less than five years
- b) 6 to 10 years
- c) 11 to 15 years
- d) 16 to 20 years
- e) 21 years and above

What is the country of origin of your business?

- a) Middle Eastern countries
- b) North African countries

In which sector is your SME present?

- a) Public sector
- b) Semi-public sector
- c) Private sector

Tick the industry your SME falls under.

- a) Hospitality Industry
- b) Manufacturing Industry
- c) Retail Industry
- d) Banking Industry
- e) Agricultural and Fishing Industry
- f) Construction Industry
- g) Energy Industry
- h) Others (Specify if any)

### Section B: Tailored Resilient Strategies for Business Continuity of SMEs in the MENA Region

SA = strongly agree

A = agree

NA/ND = neither agree nor disagree

D = disagree

SD = strongly disagree

| Sr. No. | Questions  | SA | A | NA/ND | D | SD |
|---------|--|----|---|-------|---|----|
| 1       | Business continuity is inevitable for the sustainability of small and medium enterprises in the highly uncertain business environment of the MENA region.                                      |    |   |       |   |    |
| 2       | Tailored resilience strategies can assist in maintaining business continuity within the current political, economic, social, and technological business environment in the MENA region.        |    |   |       |   |    |
| 3       | My SME focuses only on business-driven risks to shape tailored resilience strategies for business continuity.  |    |   |       |   |    |
| 4       | My SME focuses only on data-driven risks to shape tailored resilience strategies for business continuity.  |    |   |       |   |    |
| 5       | My SME focuses only on event-driven risks to shape tailored resilience strategies for business continuity.   |    |   |       |   |    |
| 6       | My SME focuses on all the key risk factors, such as business-, data-, and event-driven risks, to tailor resilience strategies for business continuity.   |    |   |       |   |    |
| 7       | We have a planned nature of business continuity management focused on the risks and threats resulting from the different macro-environmental factors as well as internal business environment. |    |   |       |   |    |

| <i>Sr. No.</i> | <i>Questions</i>  | <i>SA</i> | <i>A</i> | <i>NA/ND</i> | <i>D</i> | <i>SD</i> |
|----------------|---|-----------|----------|--------------|----------|-----------|
| 8              | Independent relationship among the stakeholders operating within the business network is highly necessary for result-oriented business outcomes.  |           |          |              |          |           |
| 9              | Most of the resilience strategies are designed to cover human errors in the technical and personnel resources.  |           |          |              |          |           |
| 10             | SMEs in the MENA region need to focus on natural disasters, more than human errors, due to the constantly changing climatic conditions and environmental attributes.  |           |          |              |          |           |
| 11             | Most of the SMEs in the MENA region focus on the risk management approach based on prevention, rather than acceptance, reduction, and transfer.   |           |          |              |          |           |
| 12             | My company's strategy is focused mainly on the prevention of IT resources, in the presence of a highly threatening technological environment.   |           |          |              |          |           |
| 13             | Secured data and information management comes as one of the critical resilience strategies for the SMEs in the MENA region.   |           |          |              |          |           |
| 14             | The tailored strategies for business resilience in our SME also include developing financial potentials with a capacity to meet the funding requirements during difficult times.  |           |          |              |          |           |
| 15             | Tailored resilience strategies helped SMEs in balancing their costs and benefits associated with the interconnected and intelligent approaches for dealing with physical as well as intellectual threats, respectively. |           |          |              |          |           |