



Linking Hierarchy Culture, Market Culture and Innovation Orientation: Moderating Roles of Causation and Effectuation

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ABSTRACT

This paper aims to examine the influence of hierarchy and market cultures on firm's innovation orientation. Also, it explores the moderating roles of the two decision-making logics, which are causation and effectuation on the relationship between hierarchy and market organizational cultures and innovation orientation. The current study extends past research on organizational culture and innovation, by being most likely the first study to examine the extent to which the relationship between hierarchical culture and SME innovation orientation is moderated by causal logic; and the extent to which effectual reasoning moderates the relationship between market culture and the innovation orientation of SMEs. The study utilizes survey data from 206 small and medium sized enterprises (SMEs) in the manufacturing and services sectors of the United Arab Emirates (UAE), that is analyzed using SmartPLS. The results of this study suggest that causation moderates the relationship between hierarchical culture and SME innovation orientation. Furthermore, market culture is only positively related to SME's innovation orientation when effectuation moderates the relationship.

Keywords: Hierarchy Culture, Market Culture, Innovation Orientation, Causation, Effectuation

JEL Classifications: M14, O30, L26

1. INTRODUCTION

The current competitive business environment is significantly shaped by the technological and globalization aspects of the market which provided new possibilities for reinforcing development of small and medium-sized enterprises (SMEs) (Ahmedova, 2015; Simpson et al., 2012). Defining SMEs can be complex as their criteria vary depending on the countries and industries. SMEs are vital to global economies, driving innovation, job creation, economic growth, and industrial development in many countries (Muhammad et al., 2021; Inyang, 2013). SMEs play a crucial role in the growth and development of the United Arab Emirate's national economy. In the UAE, SMEs represent 95% of all establishments, employing 42% of the workforce, and contributing 40% of the national value added (Gupta and Mirchandani, 2018). This study will explore the role of organizational market and hierarchy cultures on SMEs' innovation orientation in the UAE.

Over the past decade, there has been an increased focus on prioritizing organizational culture as an essential aspect of organizations' daily operations, since it has been discovered that it can affect company's performance (Akpa et al., 2021). Organizational culture is considered as one of the crucial factors in different organizations, as it can regulate the behavior of employees, and in some extreme cases it can regulate the entire organization (Szczepańska-Woszczyzna, 2014). Knowing about the applied culture in the organizations, employees can learn specific behavioral patterns, achieve the goals, and accept standards that reinforce consistent success for the organization (Szczepańska-Woszczyzna, 2014). In today's dynamic business landscape, innovation is considered as a critical component for organizations which boosts the organizational performance leading to successful outcomes. It positively impacts the financial results that creates competitive advantages, and allow firms to adapt to constantly changing demands of the market (Garavito Hernandez and Rueda Galvis, 2021). Innovation orientation plays a crucial

role in determining the overall organizational performance, thus organizations are continuously seeking various ways to enhance their innovation orientation to influence the organizational overall outcomes (Dobni and Klassen, 2015). However, fostering a culture that embraces innovation orientation's aspects can be challenging for organizations whether the members in organizations are willing to adopt or resistance innovation interferences (Hult et al., 2004). Innovation orientation within organizations can be influenced by several internal and external factors. Organizational cultural has significant role in shaping the innovation capabilities of different firms (Naranjo-Valencia et al., 2011). Past researches on organizational culture and innovation have examined the relationship between organizational culture and performance (Shahzad et al., 2017; Chen et al., 2018), strategy (Chen et al., 2018), leadership (Li et al., 2018; Lousã et al., 2018), creativity (Auernhammer and Hall, 2014; Ali Taha et al., 2016) and ambidexterity (Lin and McDonough, 2011). However, despite the contributions of past researches, there are some important gaps that make current research inadequate in terms of organizational culture and innovation orientation relationship.

Causation and effectuation are two fundamental approaches for decision-making process in organizations. These two concepts play an essential role in understanding how to develop successful firms and businesses in this competitive marketplace (Galkina and Jack, 2022). Causation focuses on setting goals and rigorous planning to achieve the pre-determined goals and vision (Saravathy, 2001). While effectuation is more about leveraging existing resources and creating innovative opportunities by exhibiting sense of resilience, affordability and flexibility (Hensel and Visser, 2020). These two decision-making approaches are important to understand the interplay between hierarchy and market cultures and innovation orientation as they are employed by various firms. By understanding how causation and effectuation moderate the relationship between hierarchy and market cultures and innovation orientation, organizations can strategically employ the benefits of both approaches when required. Previous research on causation and effectuation as moderating roles is very limited, with only few studies which employed these approaches as moderators such as moderating the relationship between knowledge and the performance of reverse internationalization (Feng et al., 2021), and founder team diversity and innovation performance relationship (Kristinsson et al., 2016). To the best of our knowledge, these approaches have not been explored as moderators on the relationship between organizational culture and innovation orientation, which makes it valuable area for further exploration.

Hence, despite the contributions of past researches, there are some important gaps that make current literature inadequate. First, there are limited studies on organizational culture and innovation orientation. There is a scarcity of research specifically focusing on the direct relationship between hierarchical culture, market culture and innovation orientation. Focusing on market culture, hierarchy culture and innovation orientation is crucial as these aspects can directly influence how enterprises and business operate and compete. Market culture, drives competitiveness, while hierarchy culture ensures stability and efficiency in work environments (Garavito Hernandez and Rueda Galvis, 2021).

Innovation orientation can foster adaptability and creativity (Dobni, 2010). These elements can shape an organization's capacity to operate well and maintain growth. Third, while previous literature discusses the role of market and hierarchy cultures in organizational performance (Deshpandé and Farley, 2004). There is limited research specifically addressing how these two cultures impact the innovation orientation aspect in Small and Medium-sized Enterprises (SMEs). Given the significant role of SMEs in economic growth, it is crucial to understand how these aspects influence affect SME's innovation and how they compete.

This study seeks to examine the relationship between hierarchy and market culture and firm's innovation orientation. Furthermore, we propose causation and effectuation as possible moderators which can influence the direction or strength of the relationship between hierarchy, market culture and firm's innovation orientation. Causation and effectuation are proposed as possible moderators as both of them represent distinct approaches to decision-making process especially in entrepreneurial contexts. Causation follows a goal-oriented process, concentrates on setting pre-defined goals, and secure resources to meet the assigned objectives (Li et al., 2020), while effectuation generate new opportunities by utilizing their current resources and networks rather than depending on external factors (Mansoori and Lackeus, 2020). It is important to explore how these approaches can direct or strength the relationship. Hence, this study addresses the following two research questions:

- What specific types of organizational culture (i.e. market and hierarchy) influence the innovation orientation of SMEs in the UAE?
- What are the relative effects of causation and effectuation in moderating the relationship between different types of organizational culture (i.e. hierarchy and market culture) and firm's innovation orientation in the UAE?

We conceptualize that hierarchy and market cultures significantly influence the innovation orientation of firms. With hierarchy culture, firm's emphasis on formalized processes and structured procedures which can impact the innovation implementation in best way in firms. While, market culture which focuses on goal achievement and competitiveness, can encourage an environment that focuses on innovation to achieve the goals and competitive. Also, it is crucial to consider the moderating roles of causation and effectuation on this relationship because these approaches are essential for decision-making processes. Understanding the moderating effects can analyze how different organizational culture contexts interact with decision-making approaches to drive innovation orientation within firms in UAE.

We utilized survey data from data from 206 respondents working in manufacturing and services industry firms in the United Arab Emirates. We used structural equation modeling technique using the SmartPLS for data analysis. Results suggest that hierarchy and market culture are not significantly associated with innovation orientation. However, when causation moderates the relationship between hierarchy culture and innovation orientation is turns to be significantly associated. While, when effectuation moderates the relationship between market culture and innovation orientation is turns to be significantly associated.

In this paper, we make several contributions. First, we address the lack of research specifically examining the impact of market and hierarchy cultures on SME's innovation orientation. Second, this study offers a novel integration of these concepts which provide a deeper understanding related to organizational culture and innovation orientation. Third, by introducing causation and effectuation as moderators, the paper adds a new dimension to the organizational culture and innovation orientation literature, particularly in SME's context. Fourth, the findings of this study offer practical implications and valuable theoretical insights for enhancing SME's innovation orientation in market and hierarchal cultures, taking into consideration the decision-making approaches. The rest of the paper is structured as follows: first, the literature review discusses key concepts such as SMEs, organizational culture, innovation orientation, causation and effectuation. The data and method section then outline the research design, data collection, sampling method and the measures for key variables. This is followed by the results section which presents the main findings. Then, the discussion section highlighted the main concepts of the study. Finally, the conclusion, implications, limitations and future research are discussed.

2. LITERATURE REVIEW

2.1. Small and Medium Sized Enterprises (SMEs)

Small and medium-sized enterprises (SMEs) are crucial to the global economy, which can stimulate economic development, employment and innovation in both developed and developing countries (Başçı and Durucan, 2017). SMEs have important contributions to economic growth by several ways such creating employment opportunities, enhancing the financial progress and enhancing innovation and industrial development in many countries (Muhammad et al., 2021). Due to these important contributions of SMEs, many countries are in the process of investing, creating and implementing new policies that support and encourage developing, expanding and protecting SMEs (Başçı and Durucan, 2017). Different sectors around the world concentrate on certain indicators to effectively define SMEs, which include number of employees, annual turnover rate, ownership structure, total number of asset and capital investments (Inyang, 2013; Muriithi, 2017). It is difficult to have a common definition for SMEs, as these definitions can vary from one country to another depending on the industrial sectors (Simpson et al., 2012). According to the European Commission definition, small and medium-sized enterprises (SMEs) are firms with <250 employees (El Madani, 2018). There are various studies in the literature about organizational culture and its impact on Small and Medium Enterprises (SMEs). Some of these studies draw attention on significant role that organizational culture on the SMEs in terms of growth, innovativeness and performance. According to Halim et al. (2019), organizational culture is highly important in sustaining innovative culture in SMEs, and how to nurture innovation culture in SMEs. Similarly, Halim et al. (2014) highlight that leveraging organizational culture and innovation human capital are crucial for SMEs innovation performance. They argue that these specific factors are crucial for the venture creation specially for SMEs. Hamdan and Alheet (2020), further explore how organizational cultures impact innovativeness, proactiveness and risk-taking

behaviors in SMEs. In addition, as noted by Szymańska (2016), there is a close link between organizational culture and the level of absorption of open innovation in SMEs, where cultures with attributes such as openness, development, commitment and others are needed for SMEs to succeed.

2.2. Organizational Culture

Organizational culture can be defined as a set of fundamental assumptions that can be explored, learned and invented by a community or group of people to resolve issues with both internal and external integration (Olan et al., 2019). It can be considered as the organization's basic philosophy which involves the common values, beliefs and standards needed for the organization's operations. These values and norms are served as the essential guidelines that all members of the organizations should follow when performing their duties (Kenedi et al., 2022) Organizational culture support's organizations to reinforce the value system, control the internal and external affairs and affects the structure and strategy (Anning-Dorson, 2021). According to Cameron and Quinn (1999) competing values framework, organizational culture has four types of cultures which are clan, adhocracy, market and hierarchy. Clan culture builds an organization with a welcoming and encouraging atmosphere where employees feel comfortable to work and treated like family members. The management with clan culture is focused more on employee's involvements and their growth within the work setting. In adhocracy culture, organizations are mainly known for their innovative and uniqueness work environment, and by utilizing resources to produce new creative products and services. The management usually encourages freedom, risk-taking and innovation (Raziq et al., 2024). Organizations' with market culture are likely to obtain high-level of productivity and efficiency from the employees, and emphasis on achieving more competitive advantages. Managements who follow market culture's characteristics are known to expect high demands and achievements from employees. Hierarchy culture is about implementing more formal policies and rules to control how organizations operate. The management with hierarchy culture emphasis predictability and stability in relationships (Cameron and Quinn, 1999; Raziq et al., 2024). Organizational culture has been recognized as one of the critical factors for enhancing innovation in firms (Naranjo Valencia et al., 2010). Many studies have explored the relationship between organizational culture and innovation (Büschgens et al., 2013; Hogan and Coote, 2014). Organizational culture has an important role in shaping the innovation capabilities in firms, in which supportive organizational culture can foster an environment where innovation and creativity are encouraged (Naranjo Valencia et al., 2010). However, there is a notable gap in the existing literature that need to be addressed in order to provide more detailed and comprehensive understanding about this relationship, particularly within the SMEs context.

2.3. Innovation Orientation

Innovation orientation can be defined as an organization's openness to new ideas and willingness to adapt to changes by implementing new technologies, administrative systems, skills and resources to maintain competitive edge and achieve growth (Zhou et al., 2005). When adopting new ideas, firms may have strong resistance from inside about not accepting these ideas. Therefore, innovation

orientation is considered as the key driver for overcoming this obstacle and enhance firm's ability to adopt and implement new processes, systems or products successfully (Hurley and Hult, 1998; Zhou et al., 2005). Innovation orientation emphasizes risk-taking, creativity, on-going improvements to be able to explore and implement innovative processes in organizations. It can facilitate innovation in organizations to implement new ideas, material artifact or practice (Zhou et al., 2005). It is one of the important strategic directions to achieve long-term success. (Gatignon and Xuereb, 1997; Zhou et al., 2005). Innovation orientation can increase firm's opportunity to have a better performance. The achievement and management of Innovation orientation will require a comprehensive involvement of all elements of organization's management processes and activities (Borodako et al., 2023). By enhancing innovation orientation within firm's environment, they will be able to create creative standards that differentiate them from other competitors, increase customer's satisfaction levels and ensure long-term sustainability (Stock and Zacharias, 2011). Innovation orientation can provide directions and guidance that will lead to firm to achieve sustainable competitive advantage (Talke et al., 2011). In addition, innovation orientation can be considered as a crucial factor to achieve organizational agility (Özkan and Salepçioğlu, 2022).

According to Dobni (2010), innovation orientation should be viewed through organizational behavior perspective which is linked with internal capabilities, and how people interact within groups which can affect the dynamics and performance of organizations. Organizational culture is considered as a significant aspect of organizational behavior which focuses on beliefs, shared values and perspectives, and practices that impact the organization. Since innovation orientation plays a critical role in organizations which impacts firm's ability to adapt, impalement and sustain new creative ideas and innovative processes. Therefore, it is crucial to understand the impact of organizational culture specifically hierarchy and market cultures on innovation orientation as firm's cultures can foster an environment where innovation aspect is acceptable. Hierarchy culture is characterized by having formal policies and rules to control how organizations operate, and clear roles and authority to provide a predictable and stable environment (Cameron and Quinn, 1999; Raziq et al., 2024). These characteristics can facilitate the execution of innovative projects effectively as these clear polices and rules can simplify the decision-making processes related to innovation. Also, the formal policies can maintain quality and reduce risks related to innovative projects in the firms. Moreover, firms with hierarchy culture are known for their well-defined responsibilities, clear roles, and formal procedures which can contribute to the innovative aspects of firms (Cameron and Quinn, 1999; Cosh et al., 2012). When implementing formal processes such as the Research and Development (R&D) departments, this allow organizations to think innovatively in a more structured manner to ensure that these innovative ideas are systematically studied, implemented and evaluated (Szopik-Depczyńska et al., 2020). Also, hierarchical firms provide clear communication structures for the employees which reduce the ambiguity and allow them to present creative and new ideas, thus will foster innovation in the organization (Keum and See, 2017). Therefore, we hypothesize:

H1: Hierarchy culture firm is positively associated with innovation orientation.

Market culture is characterized by obtaining high-level of efficiency and productivity, achieving competitive advantages, and expecting high demands and achievements from all members in organization (Cameron and Quinn, 1999; Raziq et al., 2024). These characteristics will encourage organizations to outperform the competitors by seeking out to new opportunities and innovative ideas which will require innovation orientation aspect in firms. In order to reach to desired achievements, firms will constantly adapt innovative aspect to stay ahead of market competitors and achieve the outstanding goals. Since innovation is considered as one of the critical components for organizations to boost their performance, and create competitive advantages (Garavito Hernandez and Rueda Galvis, 2021). Firms with market culture that focuses on achievements will try constantly innovate ideas and products to stay ahead of competitors and meet ambitious performance goals. Thus, we hypothesize:

H2: Market culture firm is positively associated with innovation orientation.

2.4. Causation

Causation is considered as a traditional entrepreneurial decision-making process which focuses on forecasting and providing detailed analysis of market competitors to predict the future and be prepared for the challenges (Memar et al., 2021; Pfeffer & Khan, 2018). Causation emphasizes on starting with ends, evaluating calculated and estimates outcomes, and using competitive analysis, to be able to achieve the best results as possible (Alvarez et al., 2010). Causation implantation can allow management and entrepreneurs to identify opportunities that can guarantee a lower level of uncertainty, concentrate on setting pre-defined goals, and secure resources to meet the assigned objectives (Li et al., 2020). The planning approach of causation includes models that can predict conditions through calculation or statistical inference (Chandler et al., 2011). Entrepreneurs and management who use causation approach when starting new ventures or businesses will specify clear goals and objectives that they are aiming to achieve (Fiet, 2002; Chandler et al., 2011). These goals and objectives are usually well-evaluated, and the opportunities are chosen based on the highest possible expected returns for the business. Causation approach highlights the importance of making logical decisions based on all the relevant available information along with an estimated expected utility for all decisions (Chandler et al., 2011). The steps in causation process include defining the objective or choices to be selected, choosing the set of alternative means, considering the potential limitations, and establishing the standards for choosing between the means (Mäkimurto-Koivumaa and Puhakka, 2013). Causation approach consists of five principles which are ends orientation, expected return, pre-existing knowledge, competitive analysis and prediction (Alsos et al., 2014). The first principle is ends orientation encourages the management and entrepreneurs by prioritizing clear ends orientation, setting well-defined goals, identifying precise objectives, which will guide positive actions in order to accomplish the preterminal ends related to the venture or business (Frigotto and Valle, 2018). While the second principle is expected return

principle, it focuses on assessing the potential outcomes and expected return of the chosen actions by the management and entrepreneurs (Alsos et al., 2014). Pre-existing knowledge is the third principle, which focuses mainly on the available information, historical data, previous experiences, financial and market analysis in order to proceed with decisions (Urban and Heydenrych, 2015). The fourth principle is competitive analysis which emphasizes the process of examination and evaluation for the competitive landscape in a certain industry or market (Van Baelen and Díaz Martínez, 2021). The last principle is prediction, which focuses on forecasting the future results by predicting the different scenarios based on potential situations and the anticipated consequences (Alsos et al., 2014).

Causation can enhance the relationship between hierarchy culture and innovation orientation. It can provide a detailed analysis of market competitors and structured framework about how specific actions can lead to innovative outcomes in a way that will predict the future and be prepared for the challenges (Memar et al., 2021). In organizations with hierarchy culture, processes and procedures are well-defined, causation will support in identifying and analyzing clear details and pathways through which innovative ideas can be pursued and achieved efficiently. This will ensure that resources are allocated effectively and processes are followed as planned. This will reduce the uncertainty levels and avoid challenges. With causation, innovation orientation can be enhanced with hierarchical framework in organizations. Therefore, we hypothesize:

H3: Causation moderates the relationship between hierarchy culture and innovation orientation.

Causation can enhance the relationship between market culture and innovation orientation. It can establish a clear link and detailed analysis for the competitive actions and innovative results. In firms with market culture, success and performance are obtained by efficiency, productivity and outperform the competitors (Cameron and Quinn, 1999). Causation will help in providing a clear understanding about how specific procedures and actions in market culture can lead to innovation acceptance in firms. This will strengthen the market cultures' focus on achievement, and promotes a consistent innovation orientation within firms to achieve competitive advantages. Thus, we hypothesize:

H4: Causation moderates the relationship between market culture and innovation orientation.

2.5. Effectuation

On the other hand, the concept of effectuation can be considered as a contrast for the traditional causation approach. Effectuation provides a distinctive perspective on decision-making processes, in which organizations can generate new opportunities by utilizing their current resources and networks rather than depending on external factors such as market competitors or trends (Mansoori and Lackeus, 2020; Khurana et al., 2022; Pfeffer & Khan, 2018). Effectuation emphasizes the use of creativity, innovation and experience in the decision-making process (Sarasvathy, 2001). It is the process of exploiting what is already available to achieve goals, instead of focusing on predicting the future. This concept encourages critical thinking and making

clear strategy when planning to start a business or initiating an organization (Khurana et al., 2022). Effectuation approach consists of five principles which are means orientation, contingencies, affordable loss, pre-commitment and control (Alsos et al., 2014). According to Pérez Sigüenza et al. (2022), these five principles provide framework for how management and entrepreneurs should think and behave upon starting new business or venture. The first principle is means orientation and it is about starting ventures with what you have, which can be by using the existing resources such as network, expertise and talents to develop new opportunities (Prashantham et al., 2019). It is mainly about using three means which are "Who I am", "What I know" and "Who I know" (Qureshi and Mahdi, 2014). While contingencies principle as second effectuation principle emphasizes utilizing contingencies by accepting uncertain situations, sustaining flexibility, viewing them as valuable inputs, and converting them into opportunities (Pacho and Mushi, 2021). Affordable loss is the third principle loss which focuses on the importance of taking calculated risks and being willing to accept potential losses within the acceptable limits (Martina, 2020). The fourth principle is pre-commitment which emphasizes the importance of creating partnerships and collaborations to use the skills, strengths, and resources of others (Kitching and Rouse, 2020). The last principle is control which is based on the concept of "control", in terms of controlling the future, and that entrepreneurs are not passive passengers, but are active pilots who have control over the decisions and directions of their venture (Sarasvathy, 2009; Ghorbel and Boujelbène, 2013).

Effectuation can enhance the relationship between hierarchy culture and innovation orientation. It can encourage flexibility and adaptability into the structured environment of organizations with hierarchy culture (Mansoori and Lackeus, 2020). Since hierarchy culture emphasizes clear procedures and stability, effectuation will encourage leveraging the existence resources rather than depending on external factors (Khurana et al., 2022). By this, organizations will be more flexible and open to adapt new innovative aspects. Effectuation will ensure that while organizations maintains its structure, it remains open to new ideas and enhance the aspect of innovation orientation. Hence, we hypothesize:

H5: Effectuation moderates the relationship between hierarchy culture and innovation orientation.

Effectuation can enhance the relationship between market culture and innovation orientation. It can foster an adaptive approach to innovation aspect within a competitive and result-driven environment (Khurana et al., 2022). Market culture usually focuses on exceeding the competitors and achieving positive outcomes, which can result in inflexible methods that can be concerned with short-term objectives. Effectuation will introduce flexibility by encouraging the organizations to use their available resources creatively and to have an open mind to opportunities including the innovative aspect. Therefore, we hypothesize:

H6: Effectuation moderates the relationship between market culture and innovation orientation.

Below, Figure 1 presents the conceptual model of the study which includes two independent variables as market culture and hierarchy culture while innovation orientation is the dependent variable. The

two decision-making logics causation and effectuation are the moderators for the relationship between market culture, hierarchy culture and innovation orientation.

To understand how market and hierarchy cultures impact the SME's innovation orientation, and how effectuation and causation moderate these relationships, it is highly important to examine the interconnected relationship of each construct within the above framework. Market culture emphasizes high-level of efficiency, productivity and competitiveness (Cameron and Quinn, 1999; Raziq et al., 2024). This culture drives SMEs to innovate continuously to ensure meeting the required market demands and maintaining competitive edge. Market culture can foster environments in which innovation and creativity are actively achieved and valued (Tian et al., 2018). Therefore, market culture can influence SMEs innovation orientation positively. Hierarchy culture is characterized by having formal policies, structured procedures and clear roles and authority for stable and predictable workplace (Cameron and Quinn, 1999). This culture can support SMEs' innovation aspect through providing clear processes and structured policies in terms of initiating innovation and how to be implemented in the right way to have positive outcomes (Büschgens et al., 2013). Therefore, hierarchy culture can influence SMEs innovation orientation positively. While the moderating roles of effectuation and causation can enhance further these relationships as these decision-making approaches can optimize better conditions for innovation in SMEs in terms of structured planning and the flexibility to adapt to new changes and initiate innovation thoughts.

3. DATA AND METHODS

To investigate the impact of market and hierarchy cultures on innovation orientation, and the moderating roles for causation and effectuation, the study follows a quantitative approach. We have employed an online survey, which is considered as one of the most famous methods for data collection (Wu et al., 2022). This method was chosen due to its effectiveness in obtaining quantifiable data from a larger sample across the various emirates in the United Arab Emirates, which can enhance the validity and reliability of the findings (Wu et al., 2022). Also, online survey method is known for its low costs and quick response times (Lehdonvirta et al., 2021).

The sampling method employed in the current study is random sampling, specifically simple random sampling. This technique involves the selection of participation randomly from the population who meet the criteria for the study (Emerson, 2015). Simple random sampling is considered as one of the widely applied sampling methods in quantitative studies specifically with survey instruments (Stockemer et al., 2019). This method can ensure representative, unbiased, and equal probability of the population for the study (Noor et al., 2022). The sampling selection criteria for this study include several key elements to generate a representative and relevant sample of SMEs. First, the firm size ranges from 1 to 250 employees, which is the main classification for SMEs in general. Second, the SMEs' industry sectors involved

manufacturing and services which are located around the United Arab Emirates (UAE). Both newly established and experienced SMEs with a range of years in operations are included. Also, the targeted respondents are from various hierarchical levels within the SMEs, including non-managerial employees, managers, directors, and owners which will provide a comprehensive understanding about the study topic. The study sample consists of 206 participants from SMEs from different cities in the UAE including Dubai, Abu Dhabi, Sharjah and Ajman working in manufacturing and services sectors, in various positions such as owner, director, manager and non-managerial positions. These cities were chosen due to the high concentration of SMEs available in the cities, which are crucial to the UAE's economic growth. These sampling criteria will ensure that we have a comprehensive understanding about the research topic. The inclusion criteria for SMEs was based on the definition of the Department of Economic development of Dubai in terms of number of employees (Small and Medium Enterprises (smes) in Dubai, n.d.). By concentrating of these SMEs, we aim to explore how different organizational cultures are crucial for the innovation aspect in the organization. The research context is within the United Arab Emirates, one of the rapidly developed countries with a diverse economy (Cherian, 2020). One of the UAE's strategies to concentrate on innovation aspect, and create an environment that stimulates innovation (Alshemeili and Safei, 2023). This makes UAE a good research context to study the relationship between organizational culture, innovation orientation and decision-making approaches.

Common method biases can have possible serious impact on the study findings, therefore it is important to avoid these biases when conducting a research (Podsakoff et al., 2003). To eliminate the issue of common method biases, we have followed Podsakoff's recommendations. First, we have used different structures for questions and scale formats for the independent variables (market and hierarchy cultures), the dependent variables (innovation orientation) and the moderators (effectuation and causation). The benefit of this technique is to make it impossible for the mindsets of the participants to bias the observed relationship between the variables (Podsakoff et al., 2003). Second, to avoid the social desirability bias we have ensured the participants responses to be anonyms and confidential as they might respond in socially acceptable manner.

To measure our key variables in this study, we have employed validated measures from previous research papers. These scales were selected due to their validity and reliability in measuring the relevant variables. All construct items in this study (Appendix, Table A1) were measured on a 5-point Likert scale with options ranging from "1= strongly disagree to 5= strongly agree." The constructs of organizational cultures for both market and hierarchy cultures in which each construct comprising six items and were adopted from Raziq et al. (2024), Cameron and Quinn (2011), Quinn and Spreitzer (1991), and Nazarian et al. (2017). The sample items for market culture included "the management style in the company is characterized by hard driving competitiveness, high demands and achievement", and hierarchy culture: "my company is a controlled and structured place, and formal procedures generally govern what people do". The construct of

innovation orientation was adopted from Roach et al. (2016), Calantone et al. (2002), and Hurley and Hult (1998). The sample items for innovation orientation included “our company frequently tries out new ideas” and “management actively seeks innovative ideas”. While the constructs for effectuation and causation, each of the construct has comprising 15 items and were adopted from Alsos et al. (2014) and Chandler et al. (2011). The sample item for effectuation included “we develop the business based on the resources that we have available, without any clear vision of what the business will become in the end” and for causation included “we use the long-term goal that we have set as the starting point and strive to acquire the resources that we need in order to achieve this goal”.

4. RESULTS AND DISCUSSION

The data has been analyzed by using SmartPLS tool through the variance-based structural equation modelling technique (Ringle et al., 2015). To get the structural model and measurement model, we do CFA and test the data. To reduce common method variance, we have followed Podsakoff et al. (2003) guidelines before we start the survey, by implementing reverse coded for one item from each of the main construct. Also, we have ensured the anonymity of the respondents and request them to be careful and truthful in their answers. In addition, we have tested our data through Harman’s single factor test (Harman, 1976), which has been used to test variance across all study constructs (by loading all items on one factor) and revealed a total variance of <50%.

We test for measurement model and compute scores for Composite Reliability, Cronbach’s Alpha and Average Variance Extracted (AVE) (Table 1). Our results show that Composite reliability and Cronbach’s Alpha values are above 0.7, which reveal that our data meets the SEM’s threshold (Hair Jr. et al., 2016). Then we test for discriminant validity in accordance with Fornell and Larcker (1981), which shows that AVE square root values on the diagonal are greater than the correlation coefficients of the latent variables, and by that we are meeting again the SEM requirements for the measurement model (Table 2).

Following that the direct and indirect effects are examined using bootstrapping method (Preacher and Hayes, 2008) with 5000 re-samples. First with regard to the direct effects (Table 3), results from SEM show that the direct effects of market culture and hierarchy culture with innovation orientation are not significant. However, when these relationships are interacted by causal logic and effectuation, they become significant. In other words, causal logic positively moderates the negative relationship between hierarchy culture and innovation orientation indicating that the negative relationship between hierarchy culture and innovation orientation is stronger at higher levels of causal logic. Whereas effectuation negatively moderates the negative relationship between market culture and innovation orientation indicating that the negative relationship between market culture and innovation orientation is stronger at lower levels of effectuation. We also find moderating effects of causal logic for market culture – innovation orientation relationship and of effectuation for hierarchy culture – innovation orientation, but the results are

less pronounced as results are significant at $P < 0.1$. For slope analysis, see Figures 2 and 3.

This study sought to examine the relationship between hierarchy and market cultures and firm’s innovation orientation. Furthermore, we examined the moderating roles of the two decision-making logics causation and effectuation on the relationship between hierarchy and market organizational cultures and innovation orientation. We find that causal logic positively moderates the negative relationship between hierarchy culture and innovation orientation indicating that the negative relationship between hierarchy culture and innovation orientation is stronger at higher levels of causal logic. In a previous study by Memar et al. (2021), which suggested that causation can enhance the relationship between hierarchy culture and innovation. One of our findings can be related to this perspective, in which we have discovered that, causal logic positively moderates the negative relationship between hierarchy culture and innovation orientation indicating that the negative relationship between hierarchy culture and innovation orientation is stronger at higher levels of causal logic. Previous studies have frequently highlighted that firms with hierarchical culture can inhibit the innovation aspects within the firms due to the rigid structures and processes can limit the firm’s flexibility and creativity (Sanz-Valle et al., 2011; Naranjo Valencia et al., 2010). However, our study has found that the relationship between hierarchy culture and innovation orientation can be enhanced through the integration of causation, which can positively moderate the negative relationship between hierarchy culture and innovation orientation.

While Khurana et al. (2022) found that effectuation can enhance the relationship between market culture and innovation through fostering an adaptive approach to innovation aspect within a competitive and result-driven environment. According to our results, effectuation negatively moderates the negative relationship between market culture and innovation orientation indicating that

Table 1: Measurement model (reliability statistics of all variables)

Variables	Cronbach’s alpha	Composite reliability	Average variance extracted (AVE)
Causal logic	0.986	0.987	0.835
Effectuation	0.984	0.984	0.815
Hierarchy culture	0.958	0.960	0.826
Innovation orientation	0.908	0.924	0.686
Market culture	0.954	0.956	0.813

Table 2: Discriminant validity

Variables	1	2	3	4	5
1 Causal logic	0.914				
2 Effectuation	-0.863	0.903			
3 Hierarchy culture	0.771	-0.680	0.909		
4 Innovation orientation	-0.612	0.758	-0.680	0.828	
5 Market culture	0.577	-0.473	0.684	-0.525	0.902

AVE square root in bold

Table 3: Structural model equation analysis

Hypotheses	Sample Mean (M)	T statistics	P values
Market Culture → Innovation Orientation	-0.096	1.107	0.268
Hierarchy Culture → Innovation Orientation	-0.067	0.740	0.459
(Causal Logic×Hierarchy Culture) → Innovation Orientation	0.200	2.344	0.019
(Effectuation×Market Culture) → Innovation Orientation	-0.140	2.215	0.027

a: P<0.1

Figure 1: Causal Logic moderating effect

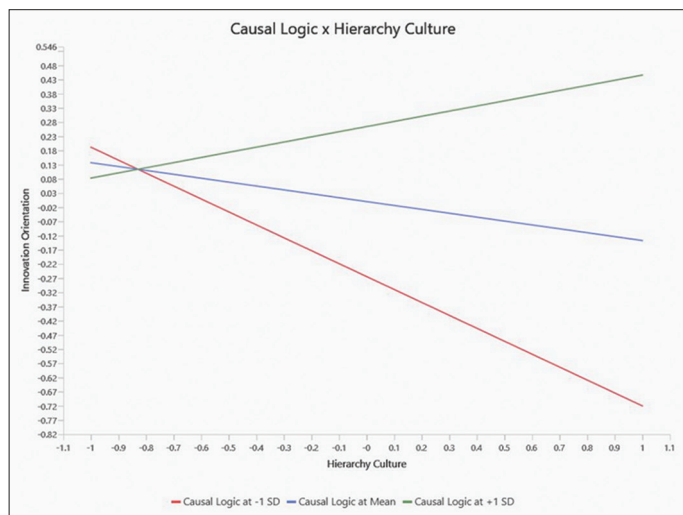
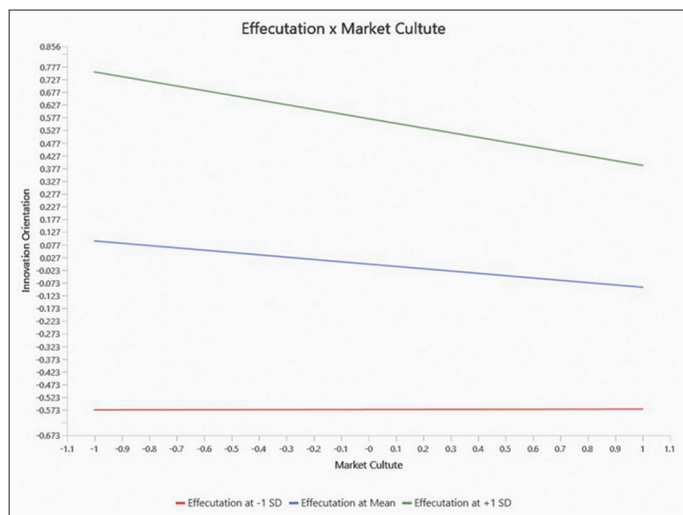


Figure 2: Effectuation moderating effect



the negative relationship between market culture and innovation orientation is stronger at lower levels of effectuation. This can suggest that higher levels of effectuation can reduce the adverse effects of market culture on innovation orientation supporting the flexibility and adaptive strategies of effectuation. Previous studies have indicated mixed results regarding the impact of market culture on firm’s innovation. According to few studies which suggested that market culture does not significantly influence innovation aspects within firms since it focuses more on competition and results (Sanz-Valle et al., 2011; Naranjo Valencia et al., 2010). In contrast, other studies have found that excessive focus on the current needs of customers in firms with market culture can be

a barrier against innovation which can limit the creativity and innovation within firms (Naranjo-Valencia et al., 2016; Baker and Sinkula, 2002). Based on our results, the negative relationship between market culture and innovation orientation can be negatively moderated by effectuation.

5. CONCLUSION, IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH

5.1. Conclusion

To conclude, this study focused on examining the relationship between hierarchy culture, market culture and firm’s innovation orientation. Furthermore, we have investigated to moderating roles of the two decision-making approaches causation and effectuation on the relationship between organizational cultures specifically hierarchy and market cultures, and innovation orientation. The results suggest that that hierarchy and market cultures do not directly impact a firm’s innovation orientation. However, hierarchy culture is positively related to a firm’s innovation orientation when causation moderates the relationship. Moreover, market culture positively influences firm’s innovation orientation only when effectuation moderates the relationship. The findings of this study highlight how crucial causation and effectuation are as moderating that can improve organizational culture’s specifically hierarchy and market cultures alignment with innovation orientation.

5.2. Theoretical Implications

We contribute to the extant literature and provide better insights on organization culture especially on market and hierarchy cultures, innovation orientation, causation and effectuation relationship in three distinct ways (Anning-Dorson, 2021; Chandler et al., 2011; Zhou et al., 2005). First, by examining the direct impact of market and hierarchy cultures on innovation orientation in firms along with moderating impact of causation and effectuation on the relationship. This will be added to the limited literature about this concept. Second, we provide differential impact as well as differential moderating role of the two decision-making logics the relationship. Third, we contribute to the knowledge of how organizational cultures and decision-making approaches affect firm’s innovation.

5.3. Practical implications

We provide insights for managers on how to foster the right culture and decision-making approach that will lead to enhance innovation in the firm. Also, we draw attention toward the role of decision-making approaches causation and effectuation toward firm’s innovation when hierarchy and market cultures are followed. Managers can adopt flexible decision-making principles such as being more flexible in market culture to improve the innovation

orientation. While managers with hierarchy culture can incorporate causation principles such as structured planning and execution that can lead to openness to innovative ideas and strategies. Moreover, policymakers can create support programs that are tailored to specify the needs of firms based on their organizational culture to enhance the innovative aspects in the firms.

5.4. Limitations

Like any study, this current study also comes with some limitations. This study specifically examines the influence of market and hierarchy cultures on the firm's innovation orientation, moderated by the decision-making approaches causation and effectuation. It provided a detailed analysis for market and hierarchy cultures; however, it limits the generalizability of the findings to the clan and adhocracy cultures which can have impact on the innovation orientation. Also, this study investigates the moderating roles of the two decision-making approaches causation and effectuation. However, the decision-making in organization can be influenced by various other approaches such as evidence-based management, intuitive decision-making, or combination of different approaches (Adam and Dempsey, 2020). Exploring these approaches can offer more valuable insights of how different decision-making approaches can influence firm's innovation orientation across the different organizational cultures. The sample size can be another limitation for this study. The small sample size might restrict the ability to generalize the study's outcomes, as it might not represent the broader population.

5.5. Future Research

Future studies can consider the remaining organizational cultures such as clan and adhocracy cultures to provide a more comprehensive understanding about how various organizational cultures can interact with causation and effectuation to impact innovation orientation. Also, future research can consider expanding the sample size which will be able to provide diversity in data, which can lead to generalizability of the findings. Finally, exploring various decision-making approaches beyond effectuation and causation such as evidence-based management and intuitive decision-making can offer a deeper understanding about a wider range of processes that can facilitate innovation orientation.

REFERENCES

- Adam, F., Dempsey, E. (2020), Intuition in decision making-Risk and opportunity. *Journal of Decision Systems*, 29(Suppl 1), 98-116.
- Ahmedova, S. (2015), Factors for increasing the competitiveness of small and medium-sized enterprises (SMEs) in Bulgaria. *Procedia-Social and Behavioral Sciences*, 195, 1104-1112.
- Akpa, V.O., Asikhia, O.U., Nneji, N.E. (2021), Organizational culture and organizational performance: A review of literature. *International Journal of Advances in Engineering and Management*, 3(1), 361-372.
- Ali Taha, V., Sirkova, M., Ferencova, M. (2016), The impact of organizational culture on creativity and innovation. *Polish journal of management studies*, 14, 7-17.
- Alshemeili, J.M., Safei, S.A. (2023), The impact of innovation practices on the performance of financial technology companies: An empirical study in UAE. *Quality-Access to Success*, 24(196), 243.
- Alsos, G.A., Clausen, T.H., Solvoll, S. (2014), Towards a better measurement scale of causation and effectuation. *Academy of Management Proceedings*, 2014(1), 13785.
- Alvarez, S.A., Barney, J.B., Young, S.L. (2010), Debates in entrepreneurship: Opportunity formation and implications for the field of entrepreneurship. In: *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*. Berlin: Springer Science & Business Media. p23-45.
- Anning-Dorson, T. (2021), Organizational culture and leadership as antecedents to organizational flexibility: Implications for SME competitiveness. *Journal of Entrepreneurship in Emerging Economies*, 13(5), 1309-1325.
- Auernhammer, J., Hall, H. (2014), Organizational culture in knowledge creation, creativity and innovation: Towards the Freiraum model. *Journal of Information Science*, 40(2), 154-166.
- Baker, W.E., Sinkula, J.M. (2002), Market orientation, learning orientation and product innovation: Delving into the organization's black box. *Journal of Market-Focused Management*, 5, 5-23.
- Başçı, S., Durucan, A. (2017), A review of small and medium sized enterprises (SMEs) in Turkey. *Yildiz Social Science Review*, 3(1), 59-79.
- Borodako, K., Berbeka, J., Rudnicki, M., Łapczyński, M. (2023), The impact of innovation orientation and knowledge management on business services performance moderated by technological readiness. *European Journal of Innovation Management*, 26(7), 674-695.
- Büschgens, T., Bausch, A., Balkin, D.B. (2013), Organizational culture and innovation: A meta-analytic review. *Journal of Product Innovation Management*, 30(4), 763-781.
- Calantone, R.J., Cavusgil, S.T., Zhao, Y. (2002), Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515-524.
- Cameron, K.S., Quinn, R.E. (1999), *Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework*. 3rd ed. Boston, MA: Addison Wesley.
- Cameron, K.S., Quinn, R.E. (2011), *Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework*. San Francisco, CA: John Wiley & Sons.
- Chandler, G.N., DeTienne, D.R., McKelvie, A., Mumford, T.V. (2011), Causation and effectuation processes: A validation study. *Journal of Business Venturing*, 26(3), 375-390.
- Chen, Z., Huang, S., Liu, C., Min, M., Zhou, L. (2018), Fit between organizational culture and innovation strategy: Implications for innovation performance. *Sustainability*, 10(10), 3378.
- Cherian, A. (2020), The construction industry in the perspective of an economic boost of the United Arab Emirates (UAE). *International Research Journal of Engineering and Technology*, 7, 270-276.
- Cosh, A., Fu, X., Hughes, A. (2012), Organisation structure and innovation performance in different environments. *Small Business Economics*, 39, 301-317.
- Deshpandé, R., Farley, J.U. (2004), Organizational culture, market orientation, innovativeness, and firm performance: An international research odyssey. *International Journal of Research in Marketing*, 21(1), 3-22.
- Dobni, C.B. (2010), The relationship between an innovation orientation and competitive strategy. *International Journal of Innovation Management*, 14(2), 331-357.
- Dobni, C.B., Klassen, M. (2015), Advancing an innovation orientation in organizations: Insights from North American business leaders. *Journal of Innovation Management*, 3(1), 104-121.
- El Madani, A. (2018), SME policy: Comparative analysis of SME definitions. *International Journal of Academic Research in Business and Social Sciences*, 8(8), 103-14.
- Emerson, R.W. (2015), Convenience sampling, random sampling, and snowball sampling: How does sampling affect the validity of research? *Journal of Visual Impairment and Blindness*, 109(2),

164-168.

- Feng, X., Ma, X., Shi, Z., Peng, X. (2021), How knowledge search affects the performance of reverse internationalization enterprises: The moderating role of causation and effectuation. *Journal of Knowledge Management*, 25(5), 1105-1127.
- Fiet, J.O. (2002), *The Systematic Search for Entrepreneurial Discoveries*. New York: Bloomsbury Publishing USA.
- Fornell, C., Larcker, D.F. (1981), Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39-50.
- Frigotto, M.L., Valle, N.D. (2018), Gender and the structuring of the entrepreneurial venture: An effectuation approach. *International Journal of Entrepreneurial Venturing*, 10(4), 412-434.
- Galkina, T., Jack, S. (2022), The synergy of causation and effectuation in the process of entrepreneurial networking: Implications for opportunity development. *International Small Business Journal*, 40(5), 564-591.
- Garavito Hernandez, Y., Rueda Galvis, J.F. (2021), Innovation and patents as a business success factor. *Journal of Economics, Finance and Administrative Science*, 26(51), 143-159.
- Gatignon, H., Xuereb, J.M. (1997), Strategic orientation of the firm and new product performance. *Journal of Marketing Research*, 34(1), 77-90.
- Ghorbel, F., Boujelbène, Y. (2013), A comprehensive literature review of effectuation theory from 1999 to 2011. *International Journal of Entrepreneurial Venturing*, 5(2), 168-194.
- Gupta, N., Mirchandani, A. (2018), Investigating entrepreneurial success factors of women-owned SMEs in UAE. *Management Decision*, 56(1), 219-232.
- Hair, J.F. Jr., Hult, G.T.M., Ringle, C., Sarstedt, M. (2016), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Newbury Park, California: Sage Publications.
- Halim, H.A., Ahmad, N.H., Ramayah, T. (2019), Sustaining the innovation culture in SMEs: The importance of organisational culture, organisational learning and market orientation. *Asian Journal of Business Research*, 9(2), 14-33.
- Halim, H.A., Ahmad, N.H., Ramayah, T., Hanifah, H. (2014), The growth of innovative performance among SMEs: Leveraging on organisational culture and innovative human capital. *Journal of Small Business and Entrepreneurship Development*, 2(1), 107-125.
- Hamdan, Y., Alheet, A.F. (2020), Influence of organisational culture on pro-activeness, innovativeness and risk taking behaviour of SMEs. *Entrepreneurship and Sustainability Issues*, 8(1), 203-217.
- Harman, H.H. (1976), *Modern Factor Analysis*. Chicago: University of Chicago Press.
- Hauser, A., Eggers, F., Guldenberg, S. (2020), Strategic decision-making in SMEs: Effectuation, causation, and the absence of strategy. *Small Business Economics*, 54(3), 775-790.
- Hensel, R., Visser, R. (2020), Does personality influence effectual behaviour? *International Journal of Entrepreneurial Behavior and Research*, 26(3), 467-484.
- Hogan, S.J., Coote, L.V. (2014), Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, 67(8), 1609-1621.
- Hult, G.T.M., Hurley, R.F., Knight, G.A. (2004), Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33(5), 429-438.
- Hurley, R.F., Hult, G.T.M. (1998), Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 62(3), 42-54.
- Inyang, B.J. (2013), Defining the role engagement of small and medium-sized enterprises (SMEs) in Corporate Social Responsibility (CSR). *International Business Research*, 6(5), 123-132.
- Kenedi, J., Satriawan, B., Khaddafi, M. (2022), The effect of organizational culture on employee performance. *International Journal of Educational Review, Law and Social Sciences*, 2(6), 817-826.
- Keum, D.D., See, K.E. (2017), The influence of hierarchy on idea generation and selection in the innovation process. *Organization Science*, 28(4), 653-669.
- Khurana, I., Dutta, D.K., Schenkel, M.T. (2022), Crisis and arbitrage opportunities: The role of causation, effectuation and entrepreneurial learning. *International Small Business Journal*, 40(2), 236-272.
- Kitching, J., Rouse, J. (2020), Contesting effectuation theory: Why it does not explain new venture creation. *International Small Business Journal*, 38(6), 515-535.
- Kristinsson, K., Candi, M., Sæmundsson, R.J. (2016), The relationship between founder team diversity and innovation performance: The moderating role of causation logic. *Long Range Planning*, 49(4), 464-476.
- Lehdonvirta, V., Oksanen, A., Räsänen, P., Blank, G. (2021), Social media, web, and panel surveys: Using non-probability samples in social and policy research. *Policy and Internet*, 13(1), 134-155.
- Li, C., Murad, M., Ashraf, S.F., Syed, N., Riaz, M. (2020), Entrepreneurial nascent behaviour: The role of causation process in opportunity discovery and creation. *Entrepreneurial Business and Economics Review*, 8(4), 183-200.
- Li, W., Bhutto, T.A., Nasiri, A.R., Shaikh, H.A., Samo, F.A. (2018), Organizational innovation: The role of leadership and organizational culture. *International Journal of Public Leadership*, 14(1), 33-47.
- Lin, H.E., McDonough, III, E.F. (2011), Investigating the role of leadership and organizational culture in fostering innovation ambidexterity. *IEEE Transactions on Engineering Management*, 58(3), 497-509.
- Lousã, E.P., dos Santos Mendes Mónico, L. (2018), How can leadership and organizational culture predict innovation in small, medium and large enterprises? *Journal of Organizational Management Studies*, 2018, 1-15.
- Mäkimurto-Koivumaa, S., Puhakka, V. (2013), Effectuation and causation in entrepreneurship education. *International Journal of Entrepreneurial Venturing*, 5(1), 68-83.
- Mansoori, Y., Lackeus, M. (2020), Comparing effectuation to discovery-driven planning, prescriptive entrepreneurship, business planning, lean Startup, and design thinking. *Small Business Economics*, 54, 791-818.
- Martina, R.A. (2020), Toward a theory of affordable loss. *Small Business Economics*, 54(3), 751-774.
- Memar, N., Sundström, A., Larsson, T. (2021), Teaching causation and effectuation in the large classroom: A production-trade game. *Journal of Management Education*, 45(3), 438-478.
- Muhammad, A.M., Basha, M.B., Al Hafidh, G. (2021), SME financing: A UAE entrepreneur perspective. *Transnational Marketing Journal*, 9(1), 107-127.
- Muriithi, S.M. (2017), African small and medium enterprises (SMEs) contributions, challenges and solutions. *European Journal of Research and Reflection in Management Sciences*, 5, 36-48.
- Naranjo Valencia, J.C., Sanz Valle, R., Jiménez Jiménez, D. (2010), Organizational culture as determinant of product innovation. *European Journal of Innovation Management*, 13(4), 466-480.
- Naranjo-Valencia, J.C., Jiménez-Jiménez, D., Sanz-Valle, R. (2011), Innovation or imitation? The role of organizational culture. *Management Decision*, 49(1), 55-72.
- Naranjo-Valencia, J.C., Jiménez-Jiménez, D., Sanz-Valle, R. (2016), Studying the links between organizational culture, innovation, and performance in Spanish companies. *Revista Latinoamericana de Psicología*, 48(1), 30-41.

- Nazarian, A., Atkinson, P., Foroudi, P. (2017), Influence of national culture and balanced organizational culture on the hotel industry's performance. *International Journal of Hospitality Management*, 36, 22-32.
- Noor, S., Tajik, O., Golzar, J. (2022), Simple random sampling. *International Journal of Education and Language Studies*, 1(2), 78-82.
- Olan, F., Liu, S., Neaga, I., Chen, H., Nakpodia, F. (2019), How cultural impact on knowledge sharing contributes to organizational performance: Using the fsQCA approach. *Journal of Business Research*, 94, 313-319.
- Özkan, H., Salepçioğlu, M.A. (2022), Does organizational agility affect sustainable quality perception? The mediating role of innovation orientation. *International Journal of Business*, 27(4), 1-20.
- Pacho, F.T., Mushi, H. (2021), The effect of effectuation set of means on new venture performance: Flexibility principle as a mediating factor. *Journal of Entrepreneurship in Emerging Economies*, 13(5), 819-837.
- Pérez Sigüenza, M., Rodríguez-León Rodríguez, L., Ramon Jeronimo, J.M., Flórez López, R. (2022), Management control systems and international entrepreneurship in small, young firms from resource-based theory, contingency, and effectuation approach perspectives. *Journal of Risk and Financial Management*, 15(8), 363.
- Pfeffer, L., Khan, M.S. (2018), Causation and effectuation: An exploratory study of New Zealand entrepreneurs. *Journal of Technology Management and Innovation*, 13(1), 27-37.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P. (2003), Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Prashantham, S., Kumar, K., Bhagavatula, S., Sarasvathy, S.D. (2019), Effectuation, network-building, and internationalization speed. *International Small Business Journal*, 37(1), 3-21.
- Preacher, K.J., Hayes, A.F. (2008), Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Quinn, R.E., Spreitzer, G.M. (1991), *The Psychometrics of the Competing Values Culture Instrument and an Analysis of the Impact of Organizational Culture on Quality of Life*. United Kingdom: Emerald.
- Qureshi, M.S., Mahdi, F. (2014), Impact of effectuation-based interventions on the intentions to start a business. *Business Review*, 9(2), 143-157.
- Raziq, M.M., Jabeen, Q., Saleem, S., Shamout, M.D., Bashir, S. (2024), Organizational culture, knowledge sharing and organizational performance: A multi-country study. *Business Process Management Journal*, 30(2), 586-611.
- Ringle, C.M., Wende, S., Becker, J.M. (2015), *SmartPLS 3*. Boenningstedt: SmartPLS GmbH.
- Roach, D.C., Ryman, J.A., Makani, J. (2016), Effectuation, innovation and performance in SMEs: An empirical study. *European Journal of Innovation Management*, 19(2), 214-238.
- Sanz-Valle, R., Naranjo-Valencia, J.C., Jiménez-Jiménez, D., Perez-Caballero, L. (2011), Linking organizational learning with technical innovation and organizational culture. *Journal of Knowledge Management*, 15(6), 997-1015.
- Sarasvathy, S.D. (2001), Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263.
- Sarasvathy, S.D. (2009), *Effectuation: Elements of Entrepreneurial Expertise*. United Kingdom: Edward Elgar Publishing.
- Shahzad, F., Xiu, G., Shahbaz, M. (2017), Organizational culture and innovation performance in Pakistan's software industry. *Technology in Society*, 51, 66-73.
- Siguaw, J.A., Simpson, P.M., Enz, C.A. (2006), Conceptualizing innovation orientation: A framework for study and integration of innovation research. *Journal of Product Innovation Management*, 23(6), 556-574.
- Simpson, M., Padmore, J., Newman, N. (2012), Towards a new model of success and performance in SMEs. *International Journal of Entrepreneurial Behavior and Research*, 18(3), 264-285.
- Small & Medium Enterprises (smes) in Dubai. (n.d.), Available from: https://sme.ae/sme_file/files/sme_report_english.pdf
- Stock, R.M., Zacharias, N.A. (2011), Patterns and performance outcomes of innovation orientation. *Journal of the Academy of Marketing Science*, 39, 870-888.
- Stockemer, D., Stockemer, G., Glaeser, J. (2019), *Quantitative Methods for the Social Sciences*. Vol. 50. Cham, Switzerland: Springer International Publishing. p185.
- Szczepańska-Woszczyna, K. (2014), The importance of organizational culture for innovation in the company. *Forum Scientiae Oeconomia*, 2(3), 27-39.
- Szopik-Depczyńska, K., Cheba, K., Wiśniewska, J. (2020), Innovation, R&D and user-driven innovation activity in R&D departments in Poland. The multi-criteria analysis. *Procedia Computer Science*, 176, 2705-2713.
- Szymańska, K. (2016), Organisational culture as a part in the development of open innovation-the perspective of small and medium-sized enterprises. *Management*, 20(1), 142-154.
- Talke, K., Salomo, S., Kock, A. (2011), Top management team diversity and strategic innovation orientation: The relationship and consequences for innovativeness and performance. *Journal of Product Innovation Management*, 28(6), 819-832.
- Tian, M., Deng, P., Zhang, Y., Salmador, M.P. (2018), How does culture influence innovation? A systematic literature review. *Management Decision*, 56(5), 1088-1107.
- Urban, B., Heydenrych, J. (2015), Technology orientation and effectuation-links to firm performance in the renewable energy sector of South Africa. *South African Journal of Industrial Engineering*, 26(3), 125-136.
- Van Baelen, T., Díaz Martínez, A. (2021), *Effectuation or Causation? A Study on Expert Start-up Advice*. Master's Thesis.
- Wu, M.J., Zhao, K., Fils-Aime, F. (2022), Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports*, 7, 100206.
- Zhou, K.Z., Gao, G.Y., Yang, Z., Zhou, N. (2005), Developing strategic orientation in China: Antecedents and consequences of market and innovation orientations. *Journal of Business Research*, 58(8), 1049-1058.