The Influence of Cultural Differences on the Innovation Process in Lebanon

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DOI: 10.29180/978-615-6886-21-7_18

Abstract

This study investigates the impact of cultural dimensions on the innovation process in Lebanon, focusing on three core factors: the level of power distance, individualism & collectivism, and uncertainty avoidance. Using a case study analysis, this paper examines two implemented real-life projects in Lebanon, Supporting Innovation in Small and Medium-sized Enterprises Project and the Social and Environmental Management Framework for Urgent Response to COVID-19 Outbreak to investigate how these cultural factors affect the growth of new ideas. To the hypotheses, findings confirm that low power distance and high individualism are conducive to innovation, especially in big cities. Still, collectivist orientation in rural areas is not, and high uncertainty avoidance lowers the innovation level, especially in large organisations. Hence, these findings stress the role of culture in the onward journey of the nation's innovation context. In contrast, there is a significance of a new, specific approach combining both socio-economic and cultural factors to possibly develop a solution to the various challenges and create glory in innovation, which can assist managers and policymakers in having a special focus on cultural dimensions in every aspect of the innovation practices.

Keywords: cultural dimensions, innovation, power distance, individualism vs. collectivism, uncertainty avoidance.

JEL classification: O31, O32, Z13, M14, L26.

Introduction

The world has been moving forward in the last centuries due to various great inventions that profoundly changed the world as a whole, ranging from the oldest one starting by wheels' invention around 3500 Before Christ (B.C.) and reaching one of the trendiest innovations, the artificial intelligence tools (AI Content Generator) that brought several debates mainly in last few years starting from the basic definition of "Innovation'' as literature defines it as the process of employing new knowledge, technologies, or methods to produce new and improved goods (Porter, 1990). Scholars argued that innovation is a key driver in the economic, financial, and social aspects of enhancing economic growth and competition and contributing to more and more societal advancements. However, the mechanisms through which innovation occurs, and the nature of the result are not the same worldwide as they are highly influenced by the organisational culture of the given society characterized by cultural norms such as creativity, risk-taking, teamwork, and leadership which vary according to cultural disparity. Furthermore, studies provide a deeper understanding and image of how people can deal with cultural differences in several countries based on the 6 core cultural dimensions including Power Distance Index (PDI), Individualism vs. Collectivism, Masculinity vs. Femininity, Uncertainty avoidance (UAI), Long-term orientation vs. short-term orientation (LTO) (Hofstede, 2003; Aleqedat, 2019; Kuklensk, 2021). Accordingly, this research aims to examine the influence of the national culture on the Lebanese innovation process and addresses a general and a specific

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aspect. Firstly, what is the relationship between innovation practices and cultural dimensions? Secondly, according to Hofstede's cultural dimensions: Power Distance, Individualism vs Collectivism, and Uncertainty Avoidance, how effectively will Lebanon innovate?

Literature review

To begin with, there is already enough scholarly research suggesting that culture influences organisational and economic performance, however, there are several studies done before pointed to culture as the primary driver of a country's innovation capability based on Hofstede's cultural dimensions (Williams & McGuire, 2010). First, Tian et al. (2018) designed a systematic literature study to explain how cultural influences affect innovation at a global level, their major findings state that Power Distance, Individualism, and Uncertainty Avoidance have a positive correlation with innovation, stressing that cultures with low Power Distance, high Individualism and low Uncertainty Avoidance are crucial points for innovation.

Second, research conducted among Dutch firms using a statistical regression analysis confirmed that cultural diversity increases innovation due to diverse perceptions. But first, it is crucial to understand that conflicts within multicultural teams depend highly on diversity management (Ozgen et al., 2013). Moreover, Strychalska-Rudzewicz (2015) in her study examined the nature of the relationship between cultural dimensions and the Global Innovation Index (GII) across European countries, their correlational analysis confirmed the negative coefficient of Power Distance emerged and the positive relationship between Individualism and innovation, by which innovation is supported by the low Power Distance and high Individualist cultures, the use of open discussion and individual actions.

Moving forward, Chen et al. (2017) examined corporate innovative performance for 41 countries using patent type and Research and Development (R&D) benchmarking methodologies. They found that Individualism positively affects the quality and quantity of patents, while high uncertainty avoidance negatively impacts innovation levels, highlighting the role of cultural characteristics in business innovation results. Furthermore, another research employed moderation analysis in the COVID-19 pandemic to explore the link between culture and innovation during the COVID-19 pandemic, they discovered that while sustained, extremely locked down nations with highly Individualistic and low Power Distance were identified to achieve higher levels of innovation thought pertinent to unlocking the impact of external factors on culture-innovation.

Moving deeper into Lebanon's example, several research were conducted to analyse the extent to which Hofstede's cultural dimensions impact innovation activity in Lebanon. First, Ben Hassen (2018) in his study about the Lebanese software industry, employed a literature review and Semi-Structured Interviews, this was the only study that established that innovation is 'client' initiated due to the lack of local R&D support in Lebanon, created by the phenomenon of Lebanese inter-organisational relationships and cultural similarity that influences knowledge sharing and collaboration. Second, in a Philosophiæ Doctor (Ph.D) thesis tackling creativity in Lebanese families using semi-structured interviews and observations, found that the lack of diversity management practices which are relevant for enhanced creativity, are notably absent, highlighting a misalignment with the conditions required in a diverse environment for innovative results (Al Kadamani, 2018). Moreover, Hadhri et al. (2016) used a national innovation survey to show that low performance in innovation within the Lebanese business sector is related to the gap between policies and the socio-economic context, showing that cultural tendency toward uncertainty avoidance can lead to risk-averse in the business environment of Lebanon. Finally, Structural Equation Modelling (SEM) in another research to examine "The Effects of Individual-level Culture and Demographic Characteristics on E-learning Acceptance in Lebanon and England", the determinants of innovation activities in small and open economies, focusing on the Lebanese sector, results demonstrated that cultural

factors like power distance and individualism are those that influence the levels of acceptance of e-learning as an innovation in educational technology in Lebanon, the broader trend of technology adoption.

To sum up, these works of scholarly studies provide a strong theoretical and empirical background to the subject matter of culture and its outcomes with a majority of them asserting that lower power distance, high individualism, and moderate uncertainty avoidance as positive levers for the promotion of innovativeness in organisations and communities. In addition, these studies investigating the links between culture and innovative performance were conducted but focused on European countries (like the United Kingdom), Asian countries, and some major global economies such as the United States, China, or Germany (Shane, 1993; Tylecote & Ramirez, 2006; Setyaningrum & Wijaya, 2022). However, little research has been done exploring more intricate contexts such as Lebanon, with political volatility, multicultural crises, and economic troubles adding to the creative climate. This gap is more pronounced given that Lebanon's entrepreneurial rate is high despite these challenges; indicating that culture might be either a promoter or a detractor of innovations. Therefore, the present research proposes the following hypotheses.

Hypothesis 1 (H1): High Power distance in Lebanese Businesses diminishes their innovation level, while low Power Distance in startups boosts innovation.

Hypothesis 2 (H2): Lebanon's mix of Individualism and Collectivism may increase innovation levels in cities but not in small towns (villages), where individuals prefer to maintain harmony within a group.

Hypothesis 3 (H3): Uncertainty Avoidance negatively and positively influences innovation levels in large and small businesses in Lebanon respectively.

Methods

Overview of Lebanese Cultural Environment

Lebanon is a historical and diverse country and a model of the medieval Mediterranean multicultural living space. The Lebanese civilization comprises Christians and Muslims, who hold quite different cultures, beliefs, and qualitative constitutions toward society. This complicates the process of forming a collective memory and presents both challenges and opportunities for forming a collective identity, often leading to an active but fragmented civil conversation about the nation. Several diverse cultural influences create perceptions regarding innovations, creativity, and teamwork within the Lebanese context.

The method used in this research is a case study analysis of two implemented projects in Lebanon, with an evaluation of the impact of cultural dimensions on innovation. This approach allows for a more complex understanding of how some of the Lebanese cultural dimensions, mainly power distance, individualism vs. collectivism, and uncertainty avoidance, affect the processes of innovation within socio-economic segments.

Successful Innovation Case Studies/ Real Projects in Lebanon

Below are 2 real projects implemented in Lebanon in 2012 and 2020, respectively. These can stand as valuable examples of innovation practices in Lebanese society in general and Small and medium-sized enterprises (SMEs) in particular.

Supporting Innovation in SMEs Project

This project was funded by a $30 million World Bank loan and implemented by Kafalat S.A.L., which intervened in core obstacles that restrict financing for SMEs in Lebanon, especially innovative firms. Initially, it used $22 million as co-investment funds for early-stage businesses to offer them tools, guidance, and connections critical to spurring imagination. Further, $2.5 million was provided for meeting project management expenses. It helped Lebanese SMEs diversify their existing portfolio by improving available financing and increasing entrepreneurial risk-taking acceptable within Lebanon's socio-economic context. This project's effects on the Lebanese innovation environment cannot be overemphasized. First, it helped create innovation capability within the SME context in Lebanon as over 30 firms expanded their product portfolios. Most of these firms can change or diversify their business or be able to change and try something new in response to market conditions. Moreover, about 300 employment opportunities greatly influenced Lebanon's economy. By settling employment in these firms, the project facilitates businesses to dedicate their resources to innovation and growth streams rather than worrying about workforce downsizing or the company's financial volatility. In addition, the project also introduced a greater level of risk-taking among Lebanese SMEs specifically in technology, sustainability, and health-oriented sectors. In some ways, this made the project even more beneficial since it allowed businesses to overcome a monetary and professional hurdle that they might have faced when trying to properly establish a business that focussed on new markets or revolutionary business strategies, and be in sync with the cultural factor of uncertainty avoidance, to the fact that it helped SMEs to experiment without capital risks and these market innovations did not have to bear most of the pressures and anxieties of short-term returns on investment.

Social and Environmental Management Framework for Urgent Response to COVID-19 Outbreak Project

This project was an emergency expansion of the iSMEs (investments for SMEs) Project launched in May 2020 and included a needed $5.5 million to mobilize Lebanese SMEs given the COVID-19 pandemic outbreak. The focus was on promoting the essential items used by SMEs including masks, medical uniforms, ventilator spares, and disinfecting agents. This fast response was vital since it ensured that the local healthcare providers received some of the essential products at the time of supply chain disruptions around the world. In addition, the framework managed to attract over 30 SMEs operating in six sectors, such as medical equipment production, chemical production, and apparel manufacturing, many of which changed their production lines to produce products that would help local healthcare systems during the crisis. Hence, the effect of this project on the Lebanese innovation system was both direct and generative of the system needed to sustain itself over time. The medical supply project enabled the transformation of Lebanon to produce its healthcare items instead of importing them through improving domestic production capacity. By this relativity framework, Lebanese SMEs learned quickly. Still, they helped cheapen the economy and develop strong domestic value chains for basic products. They gave a legacy for Lebanon by applying innovation measures under pressure and in the middle of the crisis.

Results

The key findings from two case studies about how cultural factors especially power distance together with individualism vs collectivism and uncertainty avoidance influenced innovation within Lebanese SMEs are illustrated in Table 1 and Figure 1.

Table 1: *Impact of Cultural Dimensions on Innovation in Lebanese Case Studies.*
Source: *authors' creation based on the case studies.*

Cultural Dimensions' Tested	Supporting Innovation in SMEs Project	COVID-19 Urgent Response Project
Power Distance	Low power distance in the organisation allowed distributed decision authority, leading to problem-solving through creativity.	High power distance in some Lebanese firms slowed the innovation process due to centralized authorities.
Individualism vs Collectivism	Individualism in urban SMEs allowed them to perform fast product adaptation while generating new ideas autonomously.	Collectivism supported teamwork but limited some disruptive innovation processes.
Uncertainty Avoidance	The low level of uncertainty avoidance among SMEs enabled them to take risks when experimenting with new concepts.	High uncertainty avoidance slowed innovation practices in larger firms, while small SMEs adapted quickly.

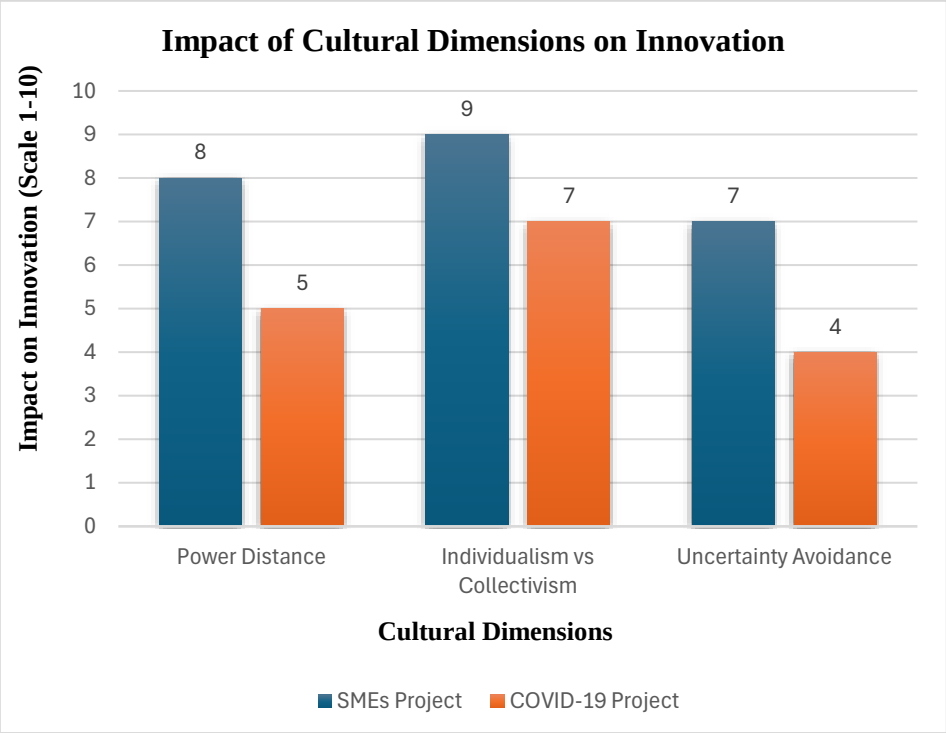

Figure 1: *Impact of Cultural Dimensions on Innovation in Lebanon*
Source: *authors' editing based on the case studies and projects' findings.*

Discussion and conclusion

The study examined the gap concerning the impact of cultural dimensions on the innovation process in Lebanon and identified factors, specifically power distance, individualism/collectivism, and uncertainty avoidance, when analysing the two real implemented innovative projects in Lebanon. In all these propositions, it is emphatically clear that cultural issues significantly influence how innovation occurs across Lebanon's socio-economic and political setting. These case studies were all useful for testing each research hypothesis and therefore provide significance for all three propositions. First, Hypothesis 1 (H1), which assumed that high power distance negatively influences innovation as opposed to low power distance, was proved. According to the findings of the Supporting Innovation in SMEs Project, it is revealed that the applied hierarchal structure of the startups is significantly low, and the decision-making authority empowers problem-solving creativity. On the other hand, power distance within better-structured organisations negatively impacted the rate of innovation because decision-making remained the preserve of top authorities, minimising adaptability. This dynamic suggests that structure and cultural perception of authority encourage or prohibit innovative activity within the Lebanese business environment.

Second, Hypothesis 2 (H2) which stated that it is through these dimensions of individualism and collectivism will improve innovation in the urban environments but may pose constraints in the rural environments was supported. In Lebanon, particularly in Beirut, the drive of the individual coupled with the organisational cooperation of a team played an important role in embracing innovation within the SMEs. So, this allowed for the fast flow of product diversification and adaption in this COVID-19 response project and responding to the market's needs. However, what emerged in the rural areas demonstrated a much more collectivistic orientation in which, although group harmony sometimes hinders disruptive innovation, the specific cultural inclinations about location were evident. Last, Hypothesis 3 (H3) was supported in uncertainty avoidance, especially in the concept of the COVID-19 response project, where new venture SMEs, which were low in uncertainty avoidance responded well to the increased rate of change to develop important medical products. High uncertainty avoidance levels in some large organisations reduced their response rate and innovative productivity to a large extent.

In conclusion, this study shows how the three cultural dimensions are essential in the innovation environment in Lebanon. SMEs have low power distance, which enables teams to generate new ideas independently; urban areas in collectivism are creativity-friendly, and low uncertainty avoidance benefits SMEs that can quickly innovate during a crisis. Yet, these findings highlight cultural sensitivity issues when working on innovation in Lebanon and while dealing with challenges such as volatility in economic situations and social characteristics. Thus, policymakers and business leaders must grasp these cultural drivers to develop suitable conditions that boost innovation in the national economy, especially within highly growth-intensive sectors and likely to be rapidly evolving. Finally, it is the consideration of cultural factors that provide a practical basis for the formation of a long-term development strategy for innovation in Lebanon as a country that must face the challenges of a global market but, at the same time, has to remain a cultural and spiritual homeland for the people. Future studies should involve collecting data of an exploratory nature to understand how such changes over the years may still affect innovation in Lebanon further.

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