

Vanessa Ratten *Editor*

Entrepreneurship Business Debates

Multidimensional Perspectives across
Geo-political Frontiers

 Springer

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Vanessa Ratten 

La Trobe University

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Chapter 1

A Perspective on Emerging Strategies and Practices in Sport Entrepreneurship in Southern Europe



Raffaele Cecere and Paolo Bernardi

1.1 Introduction

The sport industry, due to its characteristics, is one of the most globalized (Ratten, 2012) and diversified industries at the same time, generating an economic value of about \$500 billion, with a growth prospect set to reach \$700 billion by 2026 (Statista, 2022). Sport Entrepreneurship is an emerging research stream (Escamilla-Fajardo et al., 2020; Ratten & Tajeddini, 2019) that focuses on identifying and exploiting new entrepreneurial opportunities and value creation in the sport context, emphasizing the role of innovation in sport in enabling economic growth (Núñez-Pomar et al., 2016), promoting inclusion (Lyras & Peachey, 2011), social change (Cardella et al., 2021; Peterson & Schenker, 2017), and more generally the well-being of the society. Although sport entrepreneurship is traditionally linked with the literature on entrepreneurship and innovation (Hammerschmidt et al., 2021), at the same time it is also rooted in social and cultural innovations. Indeed, the sport entrepreneur is engaged in the public sector, nonprofit organizations, and business organizations. In this way, reducing his action to the sole pursuit of business purposes could be reductive, considering that this is extremely dependent on the context in which he works (Hammerschmidt et al., 2022). In this vein, the heterogeneity with which these phenomena are presented makes it difficult to theoretically define entrepreneurship sports in order to distinguish it from the general topic of entrepreneurship. In fact, sport entrepreneurship is influenced by economic, cultural, and political factors, as well as being shaped by multiple legislative interventions and public–private governance structures that are very heterogeneous with each other both within each country

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and externally between countries (Cardella et al., 2021). According to this aspect, sport entrepreneurship often considers as basic frames the processes of identifying and exploiting opportunities, sometimes linked to a specific territorial constituency, and the value creation related to the exploitation of these opportunities (Lumpkin & Dess, 1996; Shane & Venkataraman, 2000). The existing literature, although still developing, lacks cross-country comparative analyses of how educational, political, and cultural institutions interact with the phenomenon of sport entrepreneurship and, more generally, how the external environment systematically conditions entrepreneurial processes and outcomes (Cardella et al., 2021). In view of what has just been stated, in this chapter we examine the emerging academic literature in the field of sport entrepreneurship relative to Southern European countries. In this study, by Southern European countries, we consider the subdivision made by United Nations, which incorporates the following countries: Albania, Andorra, Bosnia and Herzegovina, Croatia, Gibraltar, Greece, Holy See, Italy, Malta, Montenegro, North Macedonia, Portugal, San Marino, Serbia, Slovenia, and Spain (UN, 2022). These are countries that historically, in most cases, have a long sports tradition, established systems of sports governance, a developed sports culture, and are sufficiently similar at the same time. In fact, these countries are united by geographical proximity, democratic political institutions, and integrated economic systems. Thus, from a geopolitical point of view, taking into account concrete socio-political situations located in a specific place (Foucher, 1998), it is possible to analyze a sufficient number of contributions and highlight the social, institutional, and cultural factors that influence sport entrepreneurship. For these reasons, this chapter aims to answer the following research question:

What are the main issues emerging from academic literature about innovation and entrepreneurship in sports in Southern Europe?

In the following paragraphs, the methodology adopted, the results of the bibliometric analysis, and the main themes identified will be outlined. Next, conclusions, some possible research insights, the most important limitations and recommendations for the practice of sport managers and entrepreneurs will be drawn.

1.2 Bibliometric Analysis

The development of increasingly efficient analysis tools and the availability of content-rich online databases make possible systematic studies of the literature related to a specific topic (Aria et al., 2020). This makes it possible to show the main schools of thought and the connections that interact between them and stimulate the creation of new ideas for future research (Van Leeuwen, 2006). Bibliometric type analyses allow to conduct reliable analysis based on statistical techniques and to gather information to describe a topic (Diodato & Gellatly, 2013). The information concerns both the productivity and popularity of studies and authors, but it also allows us to know how authors collaborate in their network (Cuccurullo et al., 2016). In addition, such analyses allow us to highlight the structure of the research

domain along with the main themes. Our goal in this chapter is to use a bibliometric approach based on the conceptual structure of the analyzed knowledge domain by mapping the co-word networks and analyzing the search front of the domain. The set of keywords and the co-occurrence of the words allow the representation of a specific topic and the exploration of related themes (He, 1999). In this chapter, we also offer information on the number of authors who have covered this topic, what the main publication points are, and which years the scientific community has made the most contributions. To collect the articles published on the topic of innovation and entrepreneurship in sport in Southern European countries, we referred to the Scopus indexing database downloaded on November 25, 2022.

The research took into account the keywords “innovati*” AND “entrepreneur*” AND “sport*” and a filter was applied to encompass only Southern European countries. Our search yielded 22 papers and refers to the time frame between 2010 and 2022. Data analysis was conducted through the use of the open-source package R Bibliometrix developed by Aria and Cuccurullo (2017). In Fig. 1.1, we can see that in 2010 only one study was published, no one between 2011 and 2014 and one each year between 2015 and 2018. Scientific production peaked in 2019 with six published studies. In subsequent years, the production was three in 2020, five in 2021, and three again in 2022.

The number of authors who have contributed to the advancement of knowledge in this field of knowledge is 59, and production has averaged 2.68 authors per paper. The main authors, who have at least three published studies, are Escamilla-Fajardo, González-Serrano, Miragaia, and Prado-Gascó.

The entire number of papers were published in 15 different outlets. The top five are presented in Fig. 1.2. The growth of the journals is depicted in Fig. 1.3.

Interestingly, the number of studies published in the Journal of Entrepreneurship and Public Policy went from zero to four in 2019, and publications in recent years have focused only on International Review on Public and Nonprofit Marketing (one in 2020) and Journal of business research (two in 2021).

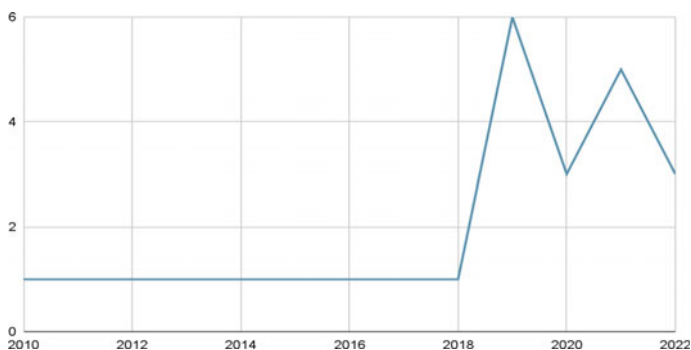


Fig. 1.1 Year-wise distribution of documents in 2010–2022. *Source* Authors’ elaboration

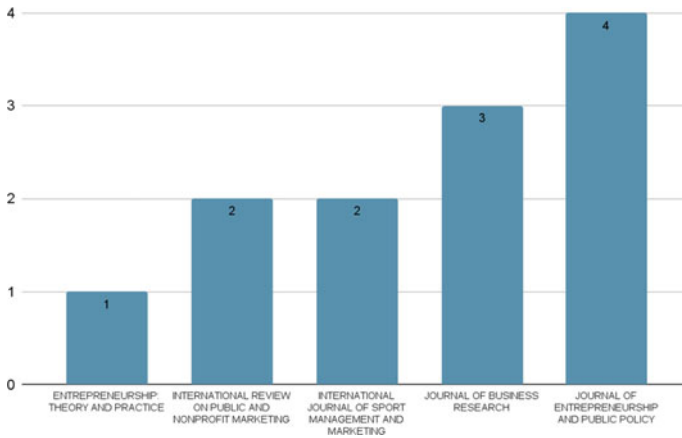


Fig. 1.2 Top-5 relevant sources. *Source* Authors' elaboration

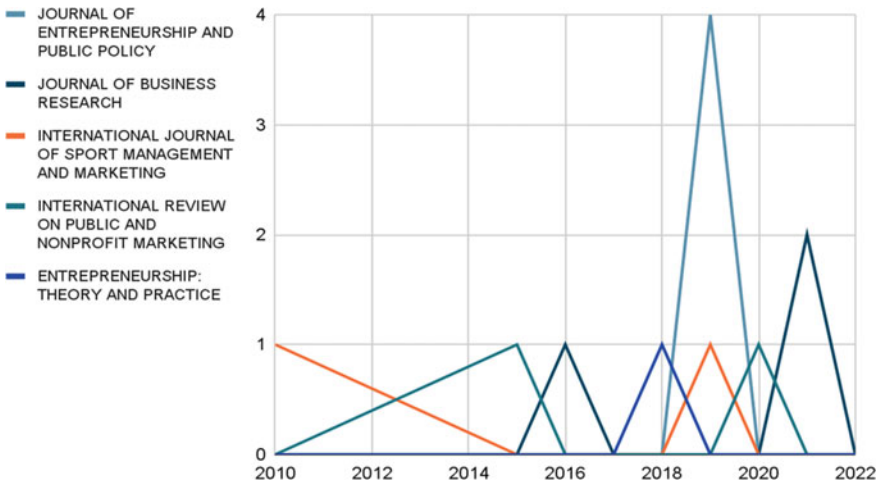


Fig. 1.3 Top-5 sources dynamics. *Source* Authors' elaboration

In order to analyze the conceptual structure of the research domain, we consider that each scientific topic is usually characterized by a set of keywords (Hubert, 1980), assigned by the authors of the publications or by citation indexes, such as the KeyWord Plus coding used by Scopus.

Regarding the keywords assigned to scientific papers by authors and those in the KeyWord Plus field around which the research domain is built, they are contained in Figs. 1.4 and 1.5, respectively. It can be seen from both figures that the most recurrent words within the documents on which the field of knowledge related to the topic is built are the concepts of crisis management due to the coronavirus, value co-creation,



Fig. 1.4 Author's keywords. *Source* Authors' elaboration



Fig. 1.5 Co-occurrence network—keyword plus. *Source* Authors' elaboration

and social entrepreneurship. In addition, the word football is evident, indicating the most popular sport.

1.3 In-Depth Review and Analysis of the Main Themes

Analyzing the main issues related to innovation and sport entrepreneurship in Southern Europe, the first to emerge is sponsorship. Specifically, Afthinos and colleagues (2010) observed that in order to create more visual impact and attract more sponsors, athletes' equipment can be modified to get the attention of media and photographers. The authors analyzed the case of water polo and argued that the use of larger caps can attract the attention of more sponsors and more revenue and

public interest in the sport. The topic of sponsorship was also examined by Miragaia and colleagues (2015). In this case, the authors studied the reasons why companies sponsor youth sport projects related to the development of social capital. The results showed that companies consider the topic of social responsibility to be important because the latter allows them to increase credibility, reputation and creates an inclusive corporate culture toward the community. The authors argue that initiatives related to social responsibility also improve company positioning and employee motivation. In another study, Miragaia and colleagues (2017) showed that the reasons for companies to invest in sponsorship are not only customer loyalty and employee motivation, but also reputation, importance of networking, social responsibility, and alternative avenues for innovative processes and new opportunities. In addition, Aguiar-Noury and Garcia-del-Barrio (2019) studied the relevance of the sports sector as part of the entertainment industry and identified the sport club brands with the greatest impact. The authors found that the greatest job opportunities are concentrated in the UK, France, Germany, and Spain, and in terms of fan interest, the NFL, NBA, and UEFA Champions League are the leagues that generate the most appeal.

Another issue that has attracted the attention of scholars in the field is related to entrepreneurial orientation. In particular, Núñez-Pomar and colleagues (2016) considered entrepreneurial orientation as the result of proactivity, innovation, and risk-taking. According to the authors, entrepreneurial orientation is critically important for small businesses with fewer resources available. In another study by Radaelli and colleagues (2018), the topic of entrepreneurial orientation was treated from another perspective, that of soccer companies. Specifically, the authors showed that sport entrepreneurs who always buy new players do not always create stronger teams than rivals. However, the entrepreneurial orientation of established managers and the quality of the player roster and human capital at their disposal are the basis for building better teams. In addition, Escamilla-Fajardo and colleagues (2019) analyzed the impact of organizational climate on innovation within sport companies. The results showed that organizational climate is positively correlated with innovation, with employee motivation and training in particular being the dimensions that have the greatest impact on innovation. Other studies have focused on the entrepreneurial attitudes of students and trainers. González-Serrano and colleagues (2019) created a scale based on innovation awareness and risk appetite to measure the entrepreneurial intentions of undergraduate sports students. The authors studied the scale with Spanish and Lithuanian students. The Lithuanian students were shown to have a higher propensity to take risks than the Spanish. Sánchez-Oliver and colleagues (2019), on the other hand, analyzing the scenario for the presentation of a training project on sports, found that the topic of entrepreneurship is not widespread among young people and training courses of this type are useful in stimulating such an entrepreneurial approach. In addition, Núñez-Pomar and colleagues (2020) found the existence of a direct effect of entrepreneurial orientation on corporate social performance. In addition, the authors identified that public funding contributes more to social performance, as do high levels of innovation and risk-taking associated with entrepreneurial action. Escamilla-Fajardo and colleagues (2021), on the

other hand, showed that entrepreneurial orientation influences the economic performance of professional sport clubs and proactivity is the dimension that most explains the phenomenon. A study by Fadda (2020) analyzed the managerial approach and entrepreneurial behaviors of a niche market, specifically that of surf schools. The results of the study show the innovative and proactive character of the entrepreneurs and, at the same time, their way of acting not strongly linked to risk or even competition. One aspect that emerged is that of cooperation with competitors and the informal managerial approach of entrepreneurs engaged in that sector. In another study by Rodrigues and colleagues (2020), a more psychological point of view was adopted to study the topic. The authors found a positive relationship between physical activity and people's entrepreneurial intention. This is related to the skills promoted by the practice of physical activity and the development of certain personal psychological and cognitive characteristics such as autonomy, risk tolerance, and leadership, which are related to the practice of sports. From a macroeconomic perspective, González-Serrano and colleagues (2021), studied a series of indicators to measure the innovation rate in the sport sector and the influence on the Gross Domestic Product (GDP). The most important factors are creativity, knowledge and technology, efficient and innovative business models, state-of-the-art infrastructure, investment in research and development, and high levels of human capital. In this regard, Bellver and colleagues (2022) argued that underlying sport entrepreneurship are social and civic values that tend toward the concept of sustainability. In addition, the authors argue that the support of the surrounding environment and the place where the entrepreneurial activity is initiated assumes an important character.

A further theme that emerged is that of the role of technology users and their contribution to innovation. Specifically, Guercini and Cova (2021) analyzed the behavioral dynamics of members of an enthusiast consumer community who created a new device for their leisure activity: a stone drill for hiking in the mountains. Innovative ideas from the enthusiast community and the company's entrepreneurial ability to turn ideas into products is the basis for building a good innovation strategy.

Other studies have addressed this phenomenon by taking into account particular periods of crisis, such as the pandemic generated by COVID-19. In particular, Hammerschmidt and colleagues (2021) highlighted how sport clubs suffered from the crisis due to their weak financial structure and underdeveloped managerial and entrepreneurial strategies. In contrast, Ratten and colleagues (2021) studied how moments of crisis such as those related to the COVID-19 pandemic led the sport industry to innovate rapidly. The authors showed that innovation led to the generation of entrepreneurial opportunities based on co-creation of value from the perspective of an ecosystem for sports based on proactive collaboration of participants.

1.4 Discussion and Conclusions

In this chapter, we have focused on analyzing the main issues affecting sport entrepreneurship in a delimited region such as Southern Europe. This geographic

area, in terms of cultural, political, and economic characteristics, is homogeneous enough to offer a sufficiently large and diverse cluster from which to identify the main issues and provide a contribution to understanding the phenomenon of sport entrepreneurship, delimiting this emerging field of research (Pellegrini et al., 2020). The analysis performed in this study confirms Sport Entrepreneurship as a sub-stream of entrepreneurship, and from this perspective the main categories into which to divide the entrepreneurial process are valid: the identification and exploitation of opportunities and value creation (Lumpkin & Dess, 1996; Shane & Venkataraman, 2000). The literature reviewed in this study has shed light on key topics in the sport entrepreneurial phenomenon, which is related to sponsorship, entrepreneurial attitude, the role of users of innovative technologies, and actions taken in times of crisis. The cultural context of sport, in terms of the popularity and/or practitioners of a sport, influences the identification and exploitation of entrepreneurial opportunities. At the same time, entrepreneurial orientation and individual characteristics, such as the passion and/or practice of a sport (Rodrigues et al., 2020), also play a determining role. This is in line with the subjectivist approach that frames the discovery of opportunities as either a two-step subjective process (McMullen & Shepherd, 2006) or as a creation from the entrepreneurs' actions (Alvarez & Barney, 2007), leading to user innovation/entrepreneurship phenomena: this can be a source for generating product innovations that, if exploited, can be a strategy for value creation (Guercini & Cova, 2021). In smaller sport enterprises, to make up for the lack of resources, value creation is supported by management's entrepreneurial orientation, in terms of proactivity and risk-taking, which allows them to create informal networks in their environment, forge cooperative agreements with competitors, and foster the adoption of innovative business models. It follows that entrepreneurial orientation is positively associated with economic and social performance. The phenomenon of sport entrepreneurship, since it is identified with social values, is strongly rooted in the target community and needs the support of the surrounding environment (Bellver et al., 2022). Therefore, initiatives in this area leverage sustainable value offerings that have strong socio-cultural and/or identity connotations. This, in turn, attracts sponsorship investments from companies that want to increase their reputation, credibility with the intention of creating more connections with the local area and communities (Aguiar-Noury & Garcia-del-Barrio, 2019; Miragaia et al., 2015; Miragaia et al., 2017).

In light of the above, sport entrepreneurship is complex and influenced by various factors. In this sense, exploring it through the lens of coopetition (Bengtsson & Raza-Ullah, 2016; Bouncken et al., 2015; Wemmer et al., 2016) and social/cultural entrepreneurship (Bernardi & Cecere, 2023; Bjärsholm, 2017), can help to better understand the fundamental dynamics and provide important contributions to theory and practice. Coopetition is relevant in the sport industry, where teams, athletes, and organizations often compete against each other but also need to cooperate to achieve mutual benefits, such as increasing revenue, expanding their reach, or improving the quality of the sport. At the same time, sports can have a significant impact on society and culture. By applying social/cultural entrepreneurship principles to the

sports industry, individuals and organizations can develop innovative solutions that address social or cultural challenges while also generating economic value.

This study is clearly not without its limitations. In this chapter, the authors' objective is to analyze the main issues emerging from the academic literature on innovation and entrepreneurship in sport in a specific geopolitical context: Southern Europe. The study takes conceptual connotations to shed light on the dynamics of the phenomenon. Future researchers could conduct empirical analyses on the sport system from the perspective of innovation and entrepreneurship using companies and governments from different countries as samples. Such studies could provide more detailed knowledge of the topic and approach it from different perspectives involving both the private and public sectors, using both qualitative and quantitative methodologies in data collection and analysis. Further comparative analyses of innovative developments in sport entrepreneurship in different countries could be helpful in more effectively delineating the theoretical framework and advancing knowledge in this research field.

This study offers entrepreneurs and policymakers' insights and examples from the literature in order to think in terms of innovation and entrepreneurship when dealing with the development of the sport sector within a geopolitical context. Factors such as cooperation, importance of sponsorship, advice on how to deal with periods of economic crisis, and involvement of technology end-users in innovation processes and new product development can be considered as basic elements to form best practices to be adopted in different contexts, taking into account, however, the differences from the geopolitical point of view.

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Chapter 2

Islamic Crowdfunding: Viability for Start-ups



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and Annie Dayani Ahad**

2.1 Introduction

Small medium-sized enterprises (SMEs) play a significant role in generating economic growth and innovation in most countries. According to the World Bank, SMEs comprise about 90% of most businesses and are critical contributors to more than 50% of all employment worldwide. Furthermore, in developing countries, SMEs account for 40% of national income (GDP). To date, many studies have been carried out on SMEs and their characteristics, implementation, etc., and performances, on SMEs and policies, their problems, and challenges, in both developed and developing countries. This study will focus on funding, which is the most prevalent and significant challenge faced by emerging entrepreneurs, particularly start-ups and micro-, small and medium-sized enterprises (MSMEs), who often lack financial creditworthiness or assets. While there are several funding options available, including personal finance, credit lines, business loans, angel investors and venture capitalists, grants, and subsidies, other funding alternatives, such as crowdfunding, have emerged with the advancement of technology, utilizing a relatively inexpensive platform to attract capital to new businesses by matching investors and entrepreneurs based on their risk appetite. Subsequently, Islamic equity crowdfunding is one of various forms of crowdfunding available on this platform, which transcends traditional loan-based fundraising. The Islamic Development Bank (IsDB) has launched IsDB Innovate, which is a crowdfunding platform that connects for-profit businesses, social

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entrepreneurs, and nonprofit organizations in various fields such as science, technology, and innovation, with local and international funders to finance operational growth or the launch of new ideas.

This study will provide an insight at the success characteristics of IsDB Innovate Start-ups, which are based on social finance contracts, as well as how they can be applied in the context of Brunei Darussalam (herein ‘Brunei’). This study will also examine the anticipated challenges of implementing this platform in Brunei, particularly the entrusted authority to regulate and administer the funding procedures. The study will contribute to determine the viability of implementing such a platform, including the regulatory and governance implications associated with such framework.

2.2 Methodology

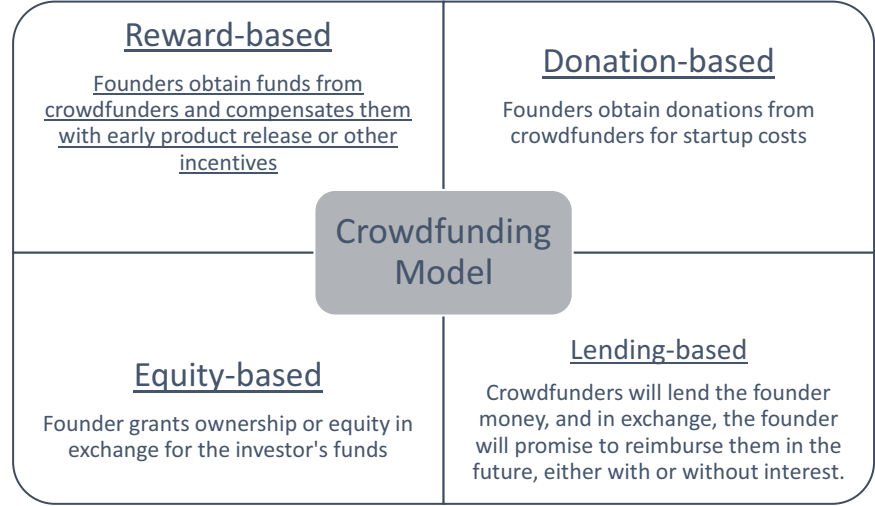
This study adopts a qualitative research methodology as it leverages on secondary data analysis to examine IsDB Innovate Start-ups; their success and challenges, the regulations and governance, their implementations and applicability to Brunei. Secondary sources, such as books, book chapters, journal papers, conference proceedings, organizational and industrial reports, news articles, and various websites, are used to gather and review data in the area of crowdfunding, Islamic crowdfunding, including IsDB and SMEs for this study. A step-by-step process for evaluating the sufficiency and quality of existing qualitative data includes examining the fit and relevance of preexisting qualitative data surrounding the area of the present study; the general and descriptive data quality; the data trustworthiness of the original data set; and the data set timeliness pertinent to the present study (Sherif, 2018).

2.3 Literature Review

2.3.1 Crowdfunding

Crowdfunding is the process of raising money to fund a project or venture, which can be viewed as an alternative to the existing financial services aimed at a diverse spectrum of audiences, including aspiring entrepreneurs, investors, the needy, and philanthropists (Muneeza et al., 2018). According to Abdullah and Oseni (2017), the backbone of crowdfunding is technology, which provides a platform for start-up founders to publicize their projects to many potential investors, and the platform will facilitate communication between the founder and investors (both potential and actual) through features such as comments, project update capabilities, and email exchanges. This is more cost-effective and sustainable.

Table 2.1 Crowdfunding (CF) model



Source Authors' own

According to Massolution (2012), crowdfunding platforms (CFPs) are categorized into four, namely, equity-based, lending-based, donation-based, and reward-based crowdfunding. Abdullah and Oseni (2017, p.4) explain that equity-based crowdfunding allows investors to obtain remuneration in the form of equity-based or revenue, or profit-sharing agreements. Equity-based crowdfunding corresponds to the Islamic finance concept of Profit and Loss Sharing (PLS), while donation-based crowdfunding corresponds to *Zakah* (alms), the mandatory charitable contribution in Islam (Muneeza et al., 2018).

As evidenced by the efforts of the Organization of Islamic Cooperation (OIC) to promote *Shariah*-compliant crowdfunding platforms to the local fundraising Ecosystem, the Islamic Financial Services Board (IFSB) recognizes the significance of crowdfunding (Muneeza et al., 2018). According to IFSB report (2017), there are 80 active crowdfunding platforms with a principal location in an OIC member state, but the majority of these platforms do not publish complete information such as the admission criteria, contracts, as well as *Shariah* compliance measures (IFSB, 2017). Different types of crowdfunding model can be seen in Table 2.1.

2.3.2 Islamic Crowdfunding

If crowdfunding complies with *Shariah* law, shares profits and losses, avoids engaging in illegal activities (such as the production of alcohol, pork, or illegal drugs), and does not impose interest fees on loans, then it can be in conformity with the law (Muneeza et al., 2018).

Crowdfunding in accordance with Islamic law could help those (Muslim and non-Muslim) who otherwise lack access to loans (Taha & Macias, cited in Muneeza et al., 2018). According to Kim and De Moor (2017), these individuals or businesses may have low credit records or absence of guarantees, but focus on obtaining intangible assets, which can be challenging to assess through conventional means (Muneeza et al., 2018). Therefore, *Shariah*-compliant crowdfunding platforms could help the financial industry by giving these individuals or businesses an alternative option to help each other (Muneeza et al., 2018). Some of the platforms are as follows (Table 2.2).

Islamic equity crowdfunding is another type of crowdfunding, which rejects traditional loan-based financing. IsDB Innovate, initiated by the Islamic Development Bank (IsDB) is a crowdfunding platform that links multiple stakeholders from various expertise, accessible to both local and foreign funders to finance operational growth or launch ideas. Muneeza et al. (2018) summarized several *Shariah*-compliant contracts in accordance with Islamic crowdfunding as can be seen in Table 2.3.

Proposed instruments shown in Table 2.3 are Islamic finance tools. Notably, *Shariah*-compliant crowdfunding excludes interest and spreads investment risk while funding in *halal*, socially responsible initiatives (Biancone et al., 2019).

Table 2.2 Crowdfunding model

CF platform	Type of financing	<i>Shariah</i> criteria / compliance
Beehive	A platform for loans in the UAE. It takes a two-pronged approach by offering both traditional and <i>Shariah</i> -compliant loan options	Explained on its website
Yomken	A Cairo-based <i>Shariah</i> -compliant platform that follows the notion of profit and loss sharing and does not charge interest	No investments will be made in alcohol, drug, pork, or any non-Islamic related projects
Liwwa	Lebanese loan-based crowdfunding	Business model based primarily on <i>murabahah</i>
Ethis Crowd and KapitalBoost	Outside of the OIC, crowdfunding sites with an Islamic focus are active. These two platforms, which are based in Singapore, offer finance to real estate developers and SMEs	Islamic-based crowdfunding
Shekra	The platform is one of the oldest equity crowdfunding platforms in Egypt, although it follows the profit-sharing idea	Does not explain how it assures <i>Shariah</i> compliance on its website
Danadidik	An Indonesian student loan platform using a profit- and loss-sharing approach to determine investor returns	Uncertain

Source Information extracted from Muneeza et al. (2018)

Table 2.3 Islamic crowdfunding model

ICF model	Description	Proposed instruments
Donation	Debt-free funding with no repayment: no measurable returns	<i>Hibah</i> ; <i>Qard Hasan</i> ; <i>Murabahah</i>
Reward	Debt-free funding with no repayment: a token of appreciation	Sale
Loan	Fixed periodic returns; Repayment	<i>Murabahah</i> ; <i>Ijarah</i>
Equity	No guarantee on repayment; Profit sharing	Diminishing <i>Musarakah</i> ; <i>Musarakah</i>

Source Marzban et al. (2014); Khan et al. (2016)

According to Basir and Besar (2021), Islamic finance has the potential to be a game-changer, particularly in Islamic economies, by providing alternative source of funding to governments.

2.3.3 Crowdfunding in IsDB

In the case of the Islamic Development Bank (IsDB), pursuant to their objectives, the institution has created funds such as the Science, Technology, and Innovation Transform Fund (IsDB-STITF) which is accessible to all member countries for project meeting the criteria of the fund. The fund is set up with IsDB as the trustee who committed around USD 100 million into the fund and other donors contributed to the targeted amount of USD 500 million. In ensuring sustainability of the fund, 70% of the targeted amount will be maintained as *Waqf* (charitable endowment), to generate income which will ensure the growth of the fund. The income generated and the rest of the 30% will be used to finance selected projects which satisfies the characteristics intended by the fund.

The main feature of a *Waqf* fund is its sustainability in which the capita portion in this case 70% will be preserved to generate returns and the returns will be used in extending financing to applicant which includes start-ups. From the financial provider side, the capital will be preserved, and their main task is to ensure returns are appropriately made through the investment of the capital. The more return generated by the capital means more applicants can have access to funding their project. The use of *Waqf* as the base contract also means that the financial provider is not worried on the depletion of capital as it is required to be reserved.

Then main criteria to access the fund is the viability and sustainability for the project to solve problems faced by the societies, especially in achieving the Social Development Goals (SDGs) as set by the United Nation back in September 2015. As such start-ups or any organizations which have viable projects are encouraged to

apply to the fund. The applications will be evaluated by the Board of trustees of the fund and will be mainly following the guidelines:

- i. IsDB-STI Fund will support any diverse and sustainable yet innovative projects (tied to one or more SDGs, feasible, scalable, impactful, adaptable, replicable, readily diffusible, affordable, and accessible) benefiting the Muslim World
- ii. IsDB-STI Fund will support the demand of beneficiaries
- iii. IsDB-STI Fund shall consider financial sustainability
- iv. IsDB-STI Fund will not violate any existing intellectual property rights;
- v. Establish monitoring and evaluation systems to measure current and future performance of IsDB-STI Fund;
- vi. IsDB-STI Fund will comply, be in conformity with Sharia'h principles.

Source: Guidelines for the Application to the Science, Technology and Innovation Transform Fund (IsDB-STIF, 2019).

Applicants interested in applying the fund can be classified into different categories as follows:

- i. New ideas with proof of concept, where eligible funding is between USD 50,000 and USD 100,000.
- ii. Scaling up of innovative project, where projects has been initially tested with success, with eligible funding up to USD 300,000.
- iii. Commercialization of technology, where projects have been successful and have been successfully scaled up but requiring additional funding for commercialization. Eligible funding for such projects is up to USD 1 Million.
- iv. Capacity Building in Science, Technology, and Innovation, where this entails the development of human resources, research initiatives, enhancing knowledge and expertise, and lastly formulating and implementing appropriate policies to support the development of the three areas stated. Eligible funding ranges from USD 100,000–USD 150,000.

The applications will undergo four evaluation process beginning with the screening process, initial evaluation of the project, final evaluation, and lastly the selection stage for final approval by the Board of Trustee. Once the project is selected, the applicants will be notified. The evaluation of the project the Board of Trustee provides a good platform for the applicants to ensure their projects are viable. Even though the applicants may not be chosen, new entrants or start-ups are sure that their project has been appropriately scrutinized by professionals and they can work on polishing their proposal at the same time enhancing the project prospect.

In addition to the grant, where receivers will be accessed thoroughly in accordance with the set criteria, IsDB has also provided a crowdfunding platform for viable projects to be posted on the website managed by the Bank. This is to cater for those applicants not chosen for the funding, but nevertheless it is a good project. The website connected the projects with potential investors and donors. The platform is open to all applicants regardless of whether they are from IsDB member countries or not. The applicants are given the space to explain their project and inform potential

investors and donors on how their project will achieve relevant objectives, especially in line with the social development goals.

Although limited information is accessible on the success of projects and start-ups given financing from the fund and crowdfunding, success stories are available on the website entailing the projects are still ongoing and benefiting the societies and the respective SDGs' objectives they applied for. This is indicating that the projects are viable and has provided benefit to the society all over the Muslim communities.

Reflecting on this project, it is deduced that the scheme provided by IsDB, based on the provision of fund utilizing Islamic contracts is a viable mechanism for financing new ventures and projects. The source of funds is sourced based on Waqf a social finance contract, which is meant to be sustainable providing more opportunities to access the funding in the future. The scheme provides equal opportunity for new entrants such as start-ups without any discrimination based on their historical credit status. The basis of fund awards look at the viability of the project and its potential in achieving the SDGs, rather than merely the ability of the project to pay off the fund. Such support is important to be highlighted as this will encourage a new breed of entrepreneurs to compete without the worry of financial insufficiency and being burdened by debts even before they start their operations.

2.4 Financial Technology (FinTech) in Brunei Darussalam

2.4.1 MSMEs in Brunei

Brunei has been blessed with the abundance of oil and gas resources in the previous years since oil was discovered back in 1929 providing the country with the wealth to shoulder basic necessities for its citizens, such as education, housing, health and social benefits. In such situation, there were abundant posts to be taken up by the citizens in the public service creating the culture of dependence on filling up this post (Srinivas, 1997). It is naturally assumed that once the citizens completed their education, they will be filling up employment in public service. As a result, it hindered the development of entrepreneurship development and interest among the citizens as they are more reliant on the government (Srinivas, 1997) rather than setting up their own business. Moreover, most active business institutions in the country are either government-owned/linked companies or family-owned (Yapa, 1999).

Concerned with the increasing government expenditure, the country has lauded the diversification initiative (Damit, 2007) since the early 2000s, with the aim of shifting the country's income away from the oil and gas industry and toward other sustainable sources of income. The government encouraged home-based and small and medium-sized enterprises to step up and generate sustainable revenue on a local and global scale. Several schemes were introduced to stimulate growth in the area, such as extending financing through government agencies, social institutions, and financing through banks.

Micro, small, and medium enterprises (MSMEs) make up about 97% of Brunei's overall companies. The process of starting a business in Brunei has been made easy where registering a business in Brunei can be done online and completed in as short as a day, with the Registry of Companies and Business Names (ROCBN) of the Ministry of Finance and Economy. This can be seen in the World Bank's Doing Business Report 2020 where Brunei has improved its ease of doing business (EODB) score from 69.6 to 70.1 and is ranked 4th among ASEAN nations behind Singapore, Malaysia, and Thailand (Ministry of Energy, Manpower, & Industry, 2019). However, securing funds has always been a challenge for MSMEs.

2.4.2 Financial Technology (FinTech) in Brunei

FinTech is a term that refers to the integration of both technology and financial services that has revolutionized how organizations operate. The global financial technology market is projected to expand rapidly, reaching a market value to about USD 324 billion (BND 437 billion) by 2026, expanding at a compound annual rate of nearly 23.41% (Market Data Forecast, 2021). By region, according to the Global FinTech Market research report (2021), North America was the major revenue contributor to the global market in 2019 and is expected to maintain its dominance due to growing acceptance and technological advancement in the region's FinTech industry. In the Asia-Pacific region, its evolving FinTech environment invites prospects and investment flocks in to capitalize on them.

Brunei's FinTech industry, however, is still in its infancy. However, the FinTech ecosystem¹ has grown rapidly as a result of increased demand for low-cost FinTech products, an increase in the number of entrepreneurs and start-ups, as well as government supports (Monetary Authority of Brunei Darussalam, 2020). Indeed, the majority of financial innovations or digital payment solutions in Brunei such as QuickPay and ProgresifPAY have been initiated by the banking institutions (Fintechnews Singapore, 2020).

One FinTech operator in AMBD's FinTech regulatory sandbox is experimenting with the Islamic crowdfunding platform, which is a marketplace linking eligible start-ups and MSMEs requiring asset financing with investors (Hj Abu Bakar, 2021). Furthermore, the employment of a broader range of financial instruments, such as Islamic social finance tools (*zakat*, *waqf*, and *sadaqah*), *sukuk* (Islamic bond), and Islamic FinTech, can promote a more dynamic Islamic finance industry (Hj Abu Bakar, 2021). Principal rules and regulations on crowdfunding and on other FinTech areas have also been established.

A number of FinTech start-ups have also been promoting their solutions in order to tackle funding constraints in Brunei and the increasing demand for online transactions

¹ See <https://fintechnews.sg/46742/brunei/bruneis-fintech-industry-continues-to-grow-amid-rising-demand-and-government-push/> for a full figure of Brunei Darussalam's FinTech Ecosystem (selected players).

Table 2.4 Brunei's FinTech Start-Ups

FinTech Start-Ups	Description
BruPay	An inclusive mobile wallet that incorporates several financial institutions, utilizing cloud-based FinTech platform to support local merchants to accept global payments system such as AliPay
MoneyMatch	A remittance start-up offering digital services using electronic know-your-customer (eKYC), and a hybrid currency settlement and disbursement portal
BEEP digital solutions	Online payment platform to enable receiving payments from Alipay to Brunei-based businesses
Jana Kapital	A peer-to-peer (P2P) Islamic crowdfunding platform

Source Authors' own compilation

and remittance services (Fintechnews Singapore, 2020). The FinTech start-ups can be seen in Table 2.4.

The four start-ups have participated in the AMBD FinTech Regulatory Sandbox and underwent several stages of assessments and evaluation process to obtain approvals prior to market participation (Fintechnews Singapore, 2020). The FinTech Regulatory Sandbox serves as a platform for the start-ups to prototype and examine their solutions, as well as a repository of information and acts as a gateway for the submission of queries and for obtaining feedback from parties in the ecosystem (Fintechnews Singapore, 2020).

The regulatory sandbox is initiated by the Brunei government to encourage FinTech innovation. Meanwhile, AMBD has established FinTech Office, to be operated by the FinTech Unit, which serves as a one-stop virtual facilitation office for any interested parties pertaining to FinTech-related matters (Fintechnews Singapore, 2020).

On 26 June 2021, Autoriti Monetari Brunei Darussalam (AMDB) has been renamed the Brunei Darussalam Central Bank (BDCB), while still maintaining their core functions, including as the regulator of the country's financial sector.

For the purpose of this study, this chapter focuses on Islamic crowdfunding, Jana Kapital as a reference.

2.4.3 Islamic Crowdfunding in Brunei

Jana Kapital was established in 2017 and is Brunei's pioneer *Shariah*-compliant peer-to-peer (P2P) crowdfunding platform which aims to source and mobilize funds into social impact targeting local MSMEs. The platform serves as funding needs and investment needs. Funding needs aims at eligible start-ups and MSMEs beyond the traditional bank financings while investment needs pool investors with excess cash or liquidity seeking to invest into local start-ups and the MSMEs industry (Jana Kapital, 2021). The structures used in the crowdfunding platform are *Shariah*

compliant and certified by Ethica Institute (US). The structures are *Murabahah* (cost-plus financing), *Wakalah* (agency contract), and *Wa'ad* (promise) *Mulzim* (binding).

Jana Kapital has outlined the following eligibility criteria:

(a) For Start Ups

- A bankable business plan and financial cash flow projections

(b) MSMEs

- Minimum 1 year of operation as a locally registered business
- Minimum monthly gross revenue of BN\$2000
- Positive free cash flow in the past 12 months
- Preferably have purchase orders from customers

It is important to note that, the funds will not be used to extend loan, operating expenses or investing securities.

2.5 Proposed Islamic Crowdfunding Structure for Brunei

Major banks in Brunei have reservation in extending finance to start-ups and MSMEs. The main reason for such stand centers mostly on the credit risks associated with these entities as banks are keen on ensuring their income in addition to the repayment of capital be appropriately secured. This has hindered start-ups and MSMEs from growing or embarking on their commercial ventures as they faced financial challenges. Even if they are extended financing or loans, it would just mean that they have additional financial obligation which they must honor even before them making even themselves. This is not productive for start-ups and MSMEs as they are burdened with financial obligation in the form of debt even before they make any returns for themselves.

Crowdfunding seems to be a better alternative for them as compared to borrowings as it is mostly on their terms catered to their expected performance, or even in return of their products and services which is more manageable and deliverable. In addition to that, crowdfunding can match the interest of the start-ups and MSMEs with those of the investors or donors. The common interest will foster trust and meaningful relationship which reduces transaction costs associated with the absence of trust.

Muamalah contracts (set of Islamic rules related to business or trading or commerce transactions, lending and borrowing contracts) such as equity contracts of *Mudarabah* (a special kind of partnership, based on profit sharing, where one partner contributes funds to another for investing in a business venture) and *Musarakah* (partnership between two or more contracting parties, who will contribute funds to the *musarakah* venture and share profits) will be the most ideal form of contracts to be used in crowdfunding viable business projects. *Mudarabah*, where the capital providers (in this case the investors) will partner with the entrepreneur (the project owner) on the project is an equity contract where the capital provider and the

entrepreneur will share profit generated from the project at a predetermined profit-sharing ratio. The capital provider will not interrupt the operation of the project until its completion and have no say in the management decisions, unless the restriction is predetermined before the start of the project. This gives the entrepreneur room to better manage the project in accordance to his plan without interruption of others at the same time free of financial worries as the capital is contributed as equity. Under this contract the entrepreneur through the project is not expected to pay anything to the capital provider unless the project has generated profit.

Once profit is generated through the project, both capital provider and the entrepreneur will divide the profit according to mutually agreed ratio. In the event of loss which is genuinely arising from an adverse business environment and not due to negligence of the entrepreneur, the capital provider will bear losses in accordance to capital invested while the entrepreneur will lose his effort and time aside from his reputation. Throughout the project, the entrepreneur is not allowed to take any financial return from the project including salary and other benefit as his share of return is solely on the profit generated. This is to negate instances of moral hazards, in situation where he is paid salary or other benefit, he may not put in his best in managing the project to be profitable.

Utilizing the contract of *Mudarabah* is very conducive for start-ups and MSMEs where they do not have to worry on meeting the repayment amount from the capital contributed by the investors especially during the initial period of business where the project or business is still struggling to make ends meet or basically trying to break even. This will give them the opportunity to concentrate on the business and ensure it generates proper return. In addition to that, they will need to be transparent to the investors on their performance increasing the trust and good relationship with the investors indirectly protecting their interest.

On the other hand, *Musyarakah* will be an ideal equity contract used in crowdfunding, if the project or business venture is associated with a high risk. Through *Musyarakah*, the capital provider (investors) and entrepreneur are equal partners. Profits and losses will be shared proportionally as per mutually agreed ratio by the partners, and to the extent of their respective capital contribution, respectively. The investors have a say in the management of the project of venture and can work hand in hand with the entrepreneur. Unlike *Mudarabah* where the entrepreneur cannot claim any salary or benefit from the venture, *Musyarakah* is more flexible in which partners can claim salary or other benefits even before the project generates any profit. However, such claims must be agreed by all partners before running the projects.

As the project is associated with a higher risk, *Musyarakah* contract facilitates the sharing of the risks between partners unlike in a financing or loan, where the entrepreneur will have to shoulder the business risk on top of paying up the expected repayment. The contract also enables partners to work together in ensuring the success of the venture or projects providing their effort respectively and not just waiting for a fix return. Start-ups and MSMEs may still benefit from such contract as they are still lifted from the trap of debt which demand them to pay the contributed amount including the fix profit even before they can break even. However, they will lose some control of the project or business as the partners do have a say in ensuring

the projects will be successful. On the upside, both partners are shouldering the business risk which will ensure them striving hard in achieving the same objective of a successful venture.

Social enterprises will benefit from the utilization of the benevolent contract of *Waqf*, similar to the practice of IsDB where the fund is established partly using *Waqf*. The capital will be preserved and returns from the investment of the capital is used to finance potential start-ups and MSMEs without expecting any return. The main aim is to ensure the availability of funds to be utilized by the start-ups and MSMEs, thus they are expected to payback at least the amount extended to them for the benefits of others. This will foster a bond among receivers of the fund encouraging their collective success. This will again create an environment of mutual understanding, trust, and transparency among receiver which will ultimately create an ethical business environment and healthy competition and not the pursuit of owner's interest.

Based on the contracts proposed above, from the *Shariah* stand, there are contracts which can enable and facilitate crowdfunding without jeopardizing the interest of the investors and entrepreneurs. It promotes healthy business practices while at the same time delivers socioeconomic development as new entrants to the market are not discriminated with financial barrier.

2.6 Challenges

With reference to IsDB, the Bank is the trustee of the fund and maintains the website for crowdfunding. This is suitable as the bank itself in its establishment is not pursuing commercial interest, rather the development of the Muslim society throughout the world.

Considering the above, should Brunei decide to embark in allowing crowdfunding especially for the start-ups and MSMEs, a trustworthy entity should be available to undertake the role in ensuring the viability of the projects proposed by the entrepreneurs and proper trust of the funds extended by the investors or donors. The entity must not be focusing on financial or commercial gains, but act as a gatekeeper ensuring the safety of parties participating in the crowdfunding activities.

In addition to the above, appropriate information system and cybersecurity must exist and is working efficiently in order to enable the trust among transacting parties. Information system governance must be a priority for any online and digital transaction to be appropriately safeguarded. Contracts and agreement between parties must be properly executed and stored for future references in cases of dispute, which will further enhance the trust of users.

Hence the country and relevant authority needs to evaluate the current available governance and regulatory entity, whether they can assume the roles of the trustworthy entity. In absence of such institution in the current framework, the authority may decide to establish the entity.

Brunei is still in the early stages of using crowdfunding. Malaysia, on the other hand, is the best and closest country from which Brunei can learn. In fact, Malaysia was the first Southeast Asian country to obtain regulatory authorization for equity crowdfunding as part of its efforts to cultivate the FinTech agenda, resulting in an increasing number of crowdfunding platforms (Ghazali & Yasuoka, 2018; Thas Thaker et al., 2018). Crowdfunding platforms utilizing digital technology arrived in Malaysia in 2012, and in 2015, the Securities Commission of Malaysia developed a regulatory framework for crowdfunding and peer-to-peer lending subsequently (Muneeza et al., 2018).

2.7 Conclusion

Due to the credit risks and financial obligations associated with start-ups and MSMEs, major banks in Brunei have reasonable concerns in extending business loans. As a result, start-ups and MSMEs have been unable to expand or actively engage in commercial activities due to financial restrictions. Thus, crowdfunding appears to be a preferable option, as common interests among start-ups and MSMEs, investors, and contributors may foster mutual trust and support. According to Islamic crowdfunding, *Mualamah* contracts, such as *Mudarabah* and *Musyarakah* equity contracts, will be the most ideal form of contracts to be used in crowdfunding viable business ventures. The *Mudarabah* contract is favorable for start-ups and MSMEs during the early stages of company survival as they can focus on their business performances, while developing trust and strong relationships with the investors. *Musyarakah* will be an appropriate equity contract in any high-risk endeavor because the investors and business owners become equal partners or collaborators, with mutual agreement on sharing profits and losses in accordance with the pre-agreed profit-sharing ratio and financial losses shared in proportion to their individual capital contribution. Meanwhile, waqf benevolent contract is beneficial to social enterprises, where fund is formed in part via the use of waqf. Therefore, from a *Shariah* standpoint, the proposed contracts promote crowdfunding while safeguarding the interest of both investors and entrepreneur at the same time ensuring solid business practices and socioeconomic growth. When Brunei adopts crowdfunding for start-ups and MSMEs, a reliable organization must be established to serve as a gatekeeper who will assist and foresee the feasibility and interest of all stakeholders involved in crowdfunding operations. In addition, a proper information system and cybersecurity must be implemented, including the examination of both contracts and agreements, including appropriate regulations and governance.

The study, conducted using secondary resources, demonstrates the feasibility and attractiveness of supporting entrepreneurial activities in Brunei, where the government has promoted the diversification of its economy and the reduction of dependency on the oil and gas industry. In a global market where, multinational corporations have substantial financial capacity and excellent excess to finance, start-ups and MSMEs will be at a disadvantage if they are unable to compete owing to financial constraints.

Theoretically, technology-based crowdfunding provides a good avenue for start-ups and MSMEs to acquire financial access to grow. Future empirical studies should place more emphasis on the advantages and disadvantages, as well as the constraints, of adopting crowdfunding. Applying *Muamalah* contracts as the basis for crowdfunding, such as *Mudarabah*, *Musarakah*, and *Waqf*, will provide further insight into how these contracts will shape business environment and economic activities for *Shariah*'s compliance.

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Chapter 3

Organizational Socio-ecological Improvement Needs for Green Entrepreneurs with Special References to Bangladesh to Accelerate Macroeconomic Prospects: A Conceptual View



José G. Vargas-Hernández and Muhammad Mahboob Ali

3.1 Introduction

Organizational socio-ecology act as both aggregate demand and aggregate supply socially through the respective countries on its organizations that exceed internal limits and affect the influence of human beings on the climate and natural environment. Ecological attitude of population is combined with the philosophy of socio-ecological population of the world. Sustainable development of a country requires political, economic, social, legal, and environmental standpoints. The rapid spread of global possibility of innovative and creative technologies has resulted in efficient economic sectors that are funders of environmental pollution and other health risk hazards with limited findings in technological innovations and ecological solutions. The development of organizational socio-ecology is grounded on theoretical methodological and practical investigation exertion. Organizational socio-ecology has implications for organizational theories. The emergence of models that values resources such as the resource-based theory, the stakeholder theory, and theory of organizational socio-ecology that value external influences. Rogers (2022) argued that “COP27 showed the continuing power of the fossil carbon lobby, hence its failure on this central issue, but times are changing and a combination of so far local

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and regional climate breakdown events, the decreased costs of decarbonization and above all the impact of direct public action come to make rapid change increasingly likely.” The governments of different countries of the globe encourage organizations to adopt and use green technology innovation with technical assistance and provide financial support and training for adoption and mitigation.

The expression “green economy” designates a style of life that is both sustainable economically and ecologically. Bangladesh Bank (the Central Bank of Bangladesh) has implemented green finance within its green banking framework, which can greatly contribute to the transition to low-carbon and resource-efficient industries for which green entrepreneurs are getting facilities. To accelerate macroeconomic prospects, green entrepreneurs may play a vital role in the economy. This is essential for an undeviating strategy combination to counter environmental alteration through a stability between aggregate demand and aggregate supply. Green production is correlated with green product consumption. Renewable resources and conservation will help to attain manufacturing facilities and control directions to earth preservation regions, proprietors, technologists, and organizers besides almost entirely expansion actions. Green entrepreneurship is an assistance to reach cohesiveness which transforms the excellence of jutting composed, or of causation belongings, to twig to attain pro people benefits. Technological innovation and diffusion and also adoption is helpful for the financial purpose through which innovative skills are familiarized into manufacturing and ingesting. Green economy has aimed at green business, green investment, and needs for green financing which help to attain aggregate demand and aggregate supply in a comparatively better situation of a country then its usage before.

Organizational socio-ecology and sociological theory apply ecological principles to organizational analysis. Organizational strategies turn around low-performance organizations, inducing the appearance of a socioeconomic, political, legal, and environmental situation. The organizational socio-ecology concept assumes that there is convergence between the paradigm of organizational socio-ecology and sociological perspectives leading to organizational research. The fundamental assumption of organizational socio-ecology is the differentiation of organizational populations. Organizational socio-ecology emphasizes issues that are still under discussion, and they achieve with areas of progress and pollination with other disciplines of logistic thought. Organizational socio-ecology is linked with other areas for the incorporation of methodological innovations such as strategic simulation models. The forces of the organizational socio-ecological context rise to criticism of the assumption that organizational destiny is a controllable variable. Organizational socio-ecology is a dynamic process and is founded on the procedure of event past investigation in the analysis of chronological processes. The theory of population socio-ecology is a tool for the theoretical and empirical analysis of organizational phenomena. The population of socio-ecology has several theoretical aspects. Population socio-ecology is a perspective of convergent intersection with sustainability that integrates dimensions, levels of analysis, and results. Routine socio-ecology deals at the organizational and inter-organizational analysis levels. Organizational socio-ecology examines the interactions of organizational populations. Organizational socio-ecology explores

intersection of sustainability. The application of principles and assumptions of organizational socio-ecology analyzes the sustainability of organizations. The theory of organizational socio-ecology is based on a social Darwinism of organizational populations. Green entrepreneurs can play a vital role, and the independent variables are gas emissions, energy consumption, green technology innovation, institutional quality, and economic growth and urbanization which are all interdependent and co-integrated.

Bangladesh Bank has expanded its product range from six to forty-seven and discriminates these products into ten groupings which are: solid waste management; energy efficiency; fired bricks; non-refractory bricks; liquid waste management; alternative energy; recycling and recycling products; renewable energy; green industry; and miscellaneous. The government of Bangladesh has reserved nearly significant ladders to endorse the green economy, which is a very positive impact on the socio-economy of the country. iED (2020) described that green entrepreneurship is the activity of consciously addressing environmental and social problems and need, and coming up with brilliant innovative entrepreneurial ideas that will bring a solution to them. The perception of organizational compatibility is positively related to green technological innovation through the creation of more green entrepreneurs in a country. Green entrepreneurs can create macroeconomic stability through updated technological improvement which is free from environmental degradation.

Yoruk et al. (2022) in the editorial for Special Issue on: “Green, Innovative and Transformational Entrepreneurship: Possibilities for Leapfrogging and Inclusive Growth in Middle and Low Income Economies” mentioned that significant insights into the major issues are being faced by the researchers of entrepreneurship who have been interesting in exploring the diverse factors and dynamics those are at play in the formation of entrepreneurial activities in low- and middle-income economies at individual entrepreneur, sector, city, region and national levels. Their comment is also being applicable in the regional and international level. Due to Rohingya issues created by the Myanmar, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) can not be activated which can play vital role to create organizational structure for socioecological improvement which requires to enhance green entrepreneurs in a country like Bangladesh.

Chowdhury et al. (2021) argued that Bangladesh needs decent governance, social renovation, and community consciousness about climate alteration which has remained at vigorous stages aimed at dropping greenhouse gas releases besides endorsing ecological sustainability. However, a vested quarter of individual and power-centric organizations in Bangladesh does not comply with different policies for which environmental hazards are crippling the ecological balances for which the country needs green entrepreneurs. IDCOL (2021) which stands for *Infrastructure Development Company Limited* in its annual report described that as a partner of the Government of Bangladesh, it has contributed to attain Sustainable Development Goals (SDGs) of the government through environment-friendly investments in numerous industries such as cement, spinning and textiles, RMG and oil refinery that use energy-efficient equipment, green building and green brick projects, solar home system (SHS), solar irrigation pump, solar mini-grid, biogas-based electricity,

biogas and bio-fertilizer program, grid-tied solar projects, and improved cook stoves by sourcing funding from different development partners. According to Palli Karma-Sahayak Foundation PKSf (2021), it described that through its Environment and Climate Change Unit, Bangladesh has established numeral environmental management strategies for microenterprises and recommended around best practices for endorsing sustainable initiatives at the grassroots. Bangladesh Bank (Central Bank of Bangladesh) (2020–21) depicted that a total amount of Bangladesh Taka 1.86 billion which was utilized from Climate Risk Fund by banks and non-bank financial institutions in fiscal year 2020–21, and the number of branches powered by solar energy was 718 during the same fiscal year which was 95.48% as green banking policy has always pursued the banks to establish online branches and prefer the branches powered by solar energy. Sarkar et al. (2020) observed that in the ready-made garments sector of the country, as the former rule has a vibrant influence on the firm's policies for attractive extra ecologically approachable performances, it introduced as a vital variable for enumerating societal sustainability through green business. As such for doing green business, sufficient numbers of green entrepreneurs are being required in Bangladesh which can accelerate macroeconomic prospects.

The objectives of the study is to recognize whether green innovation can lead to the improvement of macroeconomic prospects of a country through creating green entrepreneurs.

The research question of the study is whether organizational socio-ecology needs for green entrepreneurs particularly in an emerging country like Bangladesh to accelerate macroeconomic prospects?

3.2 Literature Review

The organizational socio-ecology theory analyzes the alterations, difficulties, and restrictions of the organizational populations in application conditions (Dimaggio) to obtain low-cost factors of growing research and development funds and reducing innovation efficiency (Murphy et al., 1993). The research focuses on the socio-ecology of populations in coordination and convergence with organizational sustainability considering that there are several areas related to the sustainability of populations that potentially contribute to population sustainability (Salimath & Jones, 2011). Investigation can be advanced through the intersection between sustainability and population socio-ecology (Salimath & Jones, 2011). The theoretical proposal builds on the theory of organizational choice and the theory of resource dependency (Pfeffer et al., 1978) and the ecological theory of organizations that allow concentrating on the specificities of the sector as exercises of elections. The socio-ecology of routines at the organizational level, and the notion of organizational character (Birnholtz et al., 2007), is defined as the ability to regenerate a coherent socio-ecology of patterns of action. Government environmental support increases the adoption of green innovation (Lin & Ho, 2010). Government environmental support refers to the systems that take the form of environmental regulations, policies, standards, and

interventions that tend to reduce the environmental effect and encourage firms to engage in environmental technology innovation (Eiadat et al., 2008). Government environmental support motivates firms to adopt environmental methods of production (Gadenne et al., 2009). The ad-hocratic organization structure is one that is flexible, self-renewing, organic, innovative, and collaborative which can fuse different disciplines into a project team avoiding the traps of bureaucratic structures such as the labor division and coordination which is the result of interactions (Mintzberg, 1979; Toffler, 1970). Green technology innovation strategies must be formulated and implemented with sensitivity considering cultural differences that have an impact on innovation processes (Westwood & Low, 2003).

Although the term “ecology” is not used, Kremser et al. (2017) theorize the interdependence traced from the dynamics of social phenomena with sets of practices (Nicolini & Monteiro, 2017). The dynamic interplay of ecological and social systems leads to a socio-ecological systems (Berkes et al., 2003; Folke et al., 2002; Gunderson & Holling, 2002).

The contingency theory advocates organizational change based on the ability to adapt and adjust an alignment between the organization and the environment. The specific environment refers to the specific conditions of each organization, related to its sector, geography, stakeholders, etc. The intermediate environment in organizational socio-ecology theory refers to the conditions of organizations grouped by geographic area, theme, etc. (Hannan & Freeman, 1977, 1989). The niche width theory is a category of organizational socio-ecology based on the survival opportunities of environmental changes of organizations (Hannan & Freeman, 1977). Organizational socio-ecology analyzes the characteristics of the vital manifestations of organizational populations, such as disappearance considering individual situations such as their size and age that are associated with survival (Aldrich & Auster, 1986). Building an organizational socio-ecology to learn as a management model of professional development must be based more on guiding than on control (Le Boterf, 1999). The socio-ecology of routines at the firm level, as well as the notion organizational character (Birnholtz et al., 2007), is defined as the ability of participants to regenerate a coherent socio-ecology of patterns of action. Routine socio-ecology is analogous to the idea of a cluster of routines. Organizational routines are understood like ecologies (Pentland, 2004).

The interdependence between routines challenges the scholars to meet the interactions in a socio-ecology between routines considering that routines never perform in a vacuum (Howard-Grenville et al., 2016) but are ubiquitous in organizations (Becker, 2008), configured in an interdependent network (Feldman et al., 2016; Pentland, 2011; Sele & Grand, 2016; Spee et al., 2016). Routines are intertwined by actions, artifacts, and people linked to other routines. Ecological routines are co-located at a particular level of macro- and microanalysis of actors and activities (Howard-Grenville et al., 2016). An ecosystems adaptive governance and social-ecological systems (Dietz et al., 2003; Eckerberg & Joas, 2004; Folke et al., 2005; Ostrom, 2005). Space changes the stability properties of ecological interactions. The implications of chaos-induced dispersal in continuous-time models for socio-ecology are important (Sole & Bascompte, 1995). Elimination of species affected by habitual loss

and fragmentation from spatial ecological patterns provides direct criteria (Hannan, 2005). Government subsidies supplying funds provide firms to conduct green innovation aligned to the government goals of technological innovation (Boeing, 2016; Bai et al., 2019).

The practice of sustainability is related in convergence with the socio-ecology of the population. Population socio-ecology has areas of convergence with organizational sustainability for the analysis of population sustainability (Salimath & Jones, 2011). The firms prefer to scale up production rather than use high-tech equipment exacerbating environmental pollution and weakening motivation (Bian et al., 2021). Many studies are used to evaluate environmental performance (Sueyoshi & Goto, 2012; Wu et al., 2019; Zhou et al., 2008). The concept of green ergonomics is in the context of green technological innovation including the development of the products and services aimed at achieving eco-benefits and reducing the organizational environmental impacts (Bernroider, 2002; Damanpour, 1992). Green innovative ergonomics focuses on contributions to enhancing the human-nature connection and diminishing the environmental impact, by linking design of innovative products and services aimed to reduce emissions and pollution with other pro-nature benefits (Mandavilli et al., 2008; Sanquist, 2008; Hilliard & Jamieson, 2008). Organizations focus on technological innovation advances to implement green innovation characteristics that may affect the adoption and use (Sneideriene & Rugine, 2019; Kousar et al., 2017; Weng & Lin, 2011). Green innovation as dependent variable can be measured by the number of patent applications associated to energy intensity (Wurlod & Noailly, 2018). Green patent applications indicate the advance of green innovation (Tolliver et al., 2021) and they are leading to innovation activities without institutional preferences and time lag, used as indicators to evaluate green innovation (Cho & Sohn, 2018; Fujii, 2016; Fujii & Managi, 2016). Large firms count on access to abundant innovation resources such as capital, R&D, patents, and technological talents (Gupeng & Xiangdong, 2012; Hu et al., 2017).

Organizations adopt technological innovation before use with elevated levels of environmental uncertainty that affects green technology innovation (Zailani et al., 2014). Organizations may be able to try to adopt the green technology innovation several times before the final adoption (Baines et al., 2012). Green organizational innovation adoption leads to offer ecological and reliable product and services environmentally friendly at competitive prices delivered on time (Thatte, 2007). Some inconsistencies may lie on the measures of green innovation performance, such as using granted patents and pollutant reduction (Amore & Bennesen, 2016; Fujii & Managi, 2016). Organizational innovation is characteristic to adopt any trial of innovation before the use and implementation because of the degree of uncertainty (Rogers, 2003).

If the organizational perception of relative advantage of innovation is greater than the cost and better than the current technology, the organization may adopt the innovation (Kousar et al., 2017; Rogers, 2003). The innovation of green process is related to updates in systems, methods and processes, and process innovation which are aimed to produce eco-friendly goods and services to meet the ecological concerns and environmental targets (Antonioli et al., 2013).

Regional economic development is a macroeconomic operation related to the investment level of innovation (Grossman & Krueger, 1995). Innovation requires skills and efforts, increasing the level of complexity while the level of adoption decreases (Bradford & Florin, 2003; Deng & Ji, 2015; Etzion, 2007; Kousar et al., 2017; Rogers, 2003; Tornatzky & Klein, 1982). Organizational learning and innovation thrive in informal settings (Gunderson, 1999). The internal fit of a learning organization has a positive relationship with organizational innovation, and this is in relation with organizational performance. The organizational learning intention has effects on innovation capability and organizational performance (Teece, 2016). There is a lack of green technological innovations in developing countries compared to developed nations (Li et al., 2015a, 2015b). A systematic review by Taklo et al. (2020) of multiple industrial sectors and regions on the emergence of green technological innovation advances for enhancing technical systems and enrichment of the customer experience. Technological innovation is adopted after observing the impacts (Shahrul & Normah, 2015; Tan & Eze, 2008). Use of innovation that is visible to potential adoption reflects the result of the characteristic observability (Rogers, 2003). Observability is a significant characteristic of technological innovation because it enables organizations to identify the benefits of innovation with high possibilities to be adopted by organizations (Hatimtai & Hassan, 2018; Rogers, 2003).

Green innovation is categorized in green management, green process, and green product (Chen & Hsu, 2009; Chen et al., 2012). Green innovation capabilities, green product innovation, green process innovation, and governance technology capabilities must have to be implemented based on the green technology innovation capabilities of firms (Wang et al., 2019). Organizational technological innovations compatible with capabilities of the organization have positive effects on the environment (Etzion, 2007). Organizational learning guides organizational innovation in knowledge-intensive organizations. Knowledge-based view extends the resource-based view (Rahim et al., 2013), and it is being used in various researches such as stakeholder theory, open innovation, big data, data management, outsourcing, and offshoring (Hoskisson et al., 2018; Pereira et al., 2019; Santoro et al., 2018; and Xu et al., 2016). Individual and organizational learning leads to innovation enhancing organizational performance. Organizational learning guides organizational innovation (Visser & Togt, 2016). State-owned enterprises assume responsibilities than non-state-owned do not assume in implementing the green innovation development under constraints of environmental regulations (Bai et al., 2019; Zhou et al., 2017). Environmental regulation policies cause small firms to enhance pollution control more than implementing green technological innovation. Growing firms have access to abundant funds for R&D investments in green innovation to improve environment-friendly production and green technology (Cao et al., 2019). Government intervention on capital misallocation may lead to deterioration of the environmental. With price distortion of capital market, capital allocation cannot be optimized (Zhang & Lu, 2017). Firms have difficulties in obtaining the capital required for technological innovation of the firm, leading to weaken the motivation to conduct research and development (Gao et al., 2019).

The influence of environmental regulations on green technological innovation of growing and mature firms achieves the highest impact, while the green technological innovation of startup firms has severe financial constraints, struggle to meet capital needs, and face-elevated level of risk-taking leading to achieve the lowest impact on investments in green innovation technologies (Shahzad et al., 2019). Capital allocation enhances green development efficiency leading to reducing the level of technological innovation. The impact of capital allocation on technological innovation is positive (Gao et al., 2019; Schmidt et al., 2020). Technological innovation increases the use of clean processes, reducing the environmental pollution (Hua et al., 2018). Technological innovation stimulates firms to use efficient resources, adopt equipment, and promote the upgrading of industries (Sun et al., 2020). Firms tend to adopt conservative strategies to invest in green technological projects with low-risk and low-intense environmental regulations (Boubakri et al., 2013; Chiu & Lee, 2020).

Organizations must intensify green technology innovation to meet the technical specifications and standards of green emissions set by governments, improve the technology governance capabilities through wastes and the innovation capabilities of green products and processes, and develop green technology innovation (Li, 2019; Saud et al., 2019; Wang et al., 2018). Regulatory captures may lapse for regulatory stringency as the leading cause for environmental accidents intentionally balancing profits (Graham et al., 2011; Steinzor, 2012). Increasing green subsidies lead to firms to have more resources and funds to invest in green technology development, enhancing green product, process innovation, and technology governance capabilities (Lin et al., 2020; Saud et al., 2019). Firms taking a profit maximization orientation may have more potential benefits from regulatory capture behavior than those having intense motivational behavior for regulatory capture (Zhang et al., 2021). The internal social responsibility of organizations is introduced in the fields of organizational socio-ecology with the application of socio-ecological and environmental measures (Oller Alonso, 2021). The industrial structure has effects on regional economic growth and ecological welfare (Huang et al., 2021; Zhao et al., 2020). Firms are restricted by internal factors of firms such as capital and technology and external factors such as inclusiveness, participants, and bureaucratic factors in the context of environmental regulation policies (Chen et al., 2021). Organizational behaviors are classified based on their motivations as symbolic strategic environmental actions for cooperation and substantive environmental actions, or substantive strategies and cooperation (Delmas & Montes-Sancho, 2010; Neumann, 2021; Truong et al., 2021). That technological innovation in organizations reduces carbon emissions and enhances environmental quality (Dauda et al., 2021; Ko et al., 2021). Green finance addressing the financial gap is a relevant financial instrument that contributes to green innovation development of firms (Luo et al., 2021). The innovation management is related to internal and external practices. Innovation externalities are being solved by means of government R&D subsidies (Bi et al., 2016; Li et al., 2018; Liu et al., 2020). Environmental protection is a social responsibility of governments (Li et al., 2015a, 2015b; Wang & Jiang, 2021). Large firms with more available resources tend to improve the quality of green technological innovation. Large firms

have more mature development of organizational systems achieving high innovation management (Yu et al., 2022).

From the literature review, it appears that most of the theory and tests are done on advanced countries' economy. As such the study wants to build a conceptual framework on the basis of diversified theories for an emerging country like Bangladesh which may be LDC graduate by 2026.

3.3 Methodology

The study is based on secondary sources. This is a qualitative analysis. As such different literature will be reviewed. Exact sources of citation and references will be properly mentioned. Time period of the study is from August 1, 2022 to November 30, 2022.

3.4 Discussions

Organizations compete for resources and resource positioning in organizational socio-ecology. Strict environmental policies will lead small firms to be inclined to reduce expenditures to enhance pollution control rather than green technological development. Organizational socio-ecology theory studies organizational size, sustaining that small organizations have more problems to capitalize, so they are prone to dissolve. Population socio-ecology supports organizational sustainability and explores the convergence that links the theory and practice of the organizational socio-ecology of populations. The indicators of a green process innovation capabilities are the strengthening transformation and enhancing protection design processes, pollution elimination, and green process review. Actions of government environmental regulation have effects on the investments of pollution elimination. Pollution control benefits are greater than those of the reduction of production, promoting firms to invest in green innovation activities. The green technology innovation capabilities of firms are related to the elements of green product innovation, process innovation, and technology governance. Green finance and strict environmental regulations have positive effects on green innovation. The moderation effects of environmental regulation advance the effects of green finance on green innovation. Environmental regulations at low levels lead to the increase in innovation performance as green finance performance increases. An emphasis on green innovation outcomes by the firms requires more efficient green finance in producing green innovation. From the perspective of motivation, green innovation should be separated from technological innovation ability.

The adoption of green technology innovation reduces negative organizational impacts of technological systems processing and of the internal administrative

processing. The green innovation of firms is related to the life cycles. Green innovation output can be achieved by the green entrepreneurs through urging firms to use green finance and investments and avoiding time-consuming projects. Differences in the firm's ownership structure, life cycle, size, etc., affect the environmental regulations affecting green innovation. Environmental regulations have a positively direct relationship with green technological innovations and usage by green entrepreneurs. The pollution emissions characteristics leading to the environmental performance affect the green development efficiency.

Environmental regulation improves the effects of green finance in green innovation. Green finances are contingent to the implementation of environmental guidelines and can improve with more intense regulations. Green finance motivates firms to invest in green technological innovation and is the driving force for green transformation of polluted firms through the engagement in green innovation activities. Environmental regulation improves the effects of green finance in green innovation. Environmental regulations strengthen the impact of green innovation projects and the effects of green finance.

Green innovation significantly lessens energy consumption and CO₂ gas emissions. Carbon emission trading market must be liberalized, positioning the emissions of firms in price mechanisms to stimulate green technological innovation activities. Carbon finance is the ratio between carbon dioxide emissions and gross domestic product. A higher level of CO₂ emissions and environmental pollution as the causal links requires the establishment of effective institutional quality to green innovation. The causality link is established between the energy consumption and the institutional quality. Thus, there is a relationship between green innovation and institutional quality. The study has found causal relationships among the variables that are determined from CO₂ emissions to economic growth, CO₂ emissions to green innovation and institutional quality, and urbanization, and energy consumption to economic growth and institutional quality. From institutional quality to green innovation, a bidirectional link exists between economic growth and gas emissions. Institutional quality and urbanization in developing countries may increase CO₂ emissions.

Organizational socio-ecology breaks the assumption of organization environment by focusing the analysis not on the individual organization but on the aggregate propositions at the population level. In the classical approach to environment, as in socio-ecology theory and contingency theory, it is assessed with objective data to plan and adjust the organization to context. There is a relationship between environmental regulation and green innovation. Values are assigned to environmental regulations leading to green innovation performance. When the environmental regulation system is weak, firms tend to emphasize maximization of profits and environmental taxes and engage in treatments to expand production scale and balance the regulation cost. Green innovation investigates emphasis on green product innovation and environmental management systems, the development of technological systems adopted by organizations, and the adoption of innovative technologies dealing with the integration of environmental-friendly practices. Environmental science and technology and strong normative and regulatory institutions support the transformation toward green innovation of firms which accelerate the macroeconomic scenario of the country.

Complexity of innovation is the degree of organizational perception of technology innovation as being difficult to use. If the complexity of innovation increases, the adoption decreases. The level of complexity increases with the difficulties of innovation diffusion and knowledge sharing. The perception of organizational complexity is negatively related to green innovation. Organization tends to adopt technology innovation when innovation is diffused, and knowledge shared. Enterprise requirements to be maintained with countrywide and worldwide strategies, appropriate procedures, delivery of distribution of adequate endowment moreover from Bangladesh Bank or foreign direct investment predominantly in the ranges of water consumption, wastewater treatment and management, efficient energy consumption and chemical usage, safeguard job-related and healthiness safety, building restructuring, guard of natural environment, and health issue of the adjacent environment.

Environmental regulation should have a positive impact on green innovation patents and green utility model patents from the perspective of influence, and the impact of environmental regulation on green innovation may decrease if firms have not eliminated strategic green innovation.

The green patent application is a measure that has effects of green finance in driving green technological innovation. The use of green patent application to measure innovative behaviors is not comprehensive for the different motivations on green innovation choices.

Environmental policy formulation must consider the specific measures for pollution control capacities of firms according to its firm's ownership structure, size, life cycle, etc. With policy on environmental regulations considering the value of carbon trading, it has a strong incentive effect in improving firm green innovation. Openness has no significant impact on green innovation because there is an indirect effect between openness and green innovation openness.

Different scale of firms promotes green technological innovation even if they are constrained by environmental regulations and small firms that are more restricted by capital, technology, talent, etc., that have more difficulties in promoting green innovation. Firms' behaviors must be constrained by environmental regulations to develop green technological innovation. The implementation of an intense environmental regulations improves green innovation considering constraints of firms that may not lead to transformation of technologically innovative production. Stringent environmental regulations tend to strength the motivation of firms to pursue technological innovation. Technological innovation tends to facilitate green economy development having a mediating role on capital allocation on green economic efficiency while capital allocation improves the green development efficiency. Technological innovation has a mediating role with capital allocation and enhances green development efficiency. The intervention of external factors may destroy the price of capital mechanism, lowering costs of production factors for polluting industries. Technological innovation has a mediating role with capital allocation on green development efficiency.

The mechanism of environmental regulation policy has influence on the motivation of green innovation firms to differentiate between the green innovation behaviors

in regulation and regulated objects of government enterprise. Mechanisms of environmental regulations policies affect organizational green innovation in different green innovations behaviors.

Technological innovation infrastructure system improves the innovation efficiency by protecting the property rights. For rapid economic growth, most developing countries are dependent on non-renewable energy consumption, leading to significant CO₂ releases with adverse effects on environmental quality. Improving the well-being via development increases output accompanied by the substantial consumption of fossil fuel with harmful influence on the environment. Energy consumption releasing more carbon is the major contributor to environmental footprint. Worldwide governments may invest and encourage firms to develop innovative activities through technology spillovers from foreign investments and competition incentives.

Organizational socio-ecology of routines are often coupled and linked with actions, artifacts, and people. Routines in socio-ecology has the macro- and microfoundation for macroeconomic analysis of actors and activities.

3.5 Conclusions and Recommendations

There is a direct relationship between the incentives of environmental regulation and the socio-ecological and green technological innovation in organizations. The socio-ecology of the organizational population has implications for sustainability. Institutional reforms are essential to reduce ecological emissions and achieve climate change goals. Bangladesh has not up till now allotted proper green industrial policy announcement with more financial help to the green entrepreneurs. Policies and regulations of green economy and business needs to be updated so that Bangladesh can create more green entrepreneurs for the macroeconomic development with social justice, removing income inequality, and reducing poverty.

Value addition of commercial and value-added tax charges also generate fences to greening industrialization, which likewise types the situation problematic to introduction high-end equipment as of overseas. State-owned enterprises as well private enterprises in Bangladesh need to improve after the implementation of environmental regulations since constrained environmental regulations policy and firms respond faster to policies on green innovation due to the responsibility and use of scarce resources. Ecological contingencies imposed by the environment require the fulfillment of components of organizational socio-ecology.

Investments on research and development, human capital, gross domestic product, per capita income, reduction of poverty, and monetary and fiscal policies have effects on the development of green innovation which are ultimately helpful to create business environment for the green entrepreneurs. Investments on research and development have effects on human capital and gross domestic product and on the development of green innovation. With appropriate investments in research and development, human capital, and gross domestic product per capita, the green innovation performance improves. The organizational socio-ecology framework uses its knowledge

to formulate and implement turn around organizational strategies. Organizational socio-ecology requires consensus for the cumulative generation of knowledge.

Grants in research and development activities will enhance the firm technological innovation capabilities to lower the production cost. Green investment is the ratio between fiscal expenditure on energy conservation and environmental protection and total fiscal expenditure. Relative advantage is related to green innovation adoption. The relative advantage is the perception of the characteristic of organizational technology innovation in terms of price, quality, satisfaction, use, and life span over its costs. Perception of organizational relative advantage is positively related to green innovation.

Firms realize high-quality green innovation behavior to promote green technology to obtain a competitive advantage. Green innovation firms are higher during the growth and maturity periods when they improve green technological innovation and develop a keen sense of social responsibility for more active innovation activities. The role of technological innovation needs to be strengthened to improve green development efficiency. The organization must implement and scrutinize green product innovation capabilities implementation, green process innovation capabilities, and technology governance capabilities. Environmental regulations influence government subsidies to eliminate compliance costs improving green innovation with minimal impact on green innovation behaviors. Bangladesh Government subsidies on green innovation must diversely types to determine the effect on the choices of innovative behaviors with different motivations. Green innovation subsidies' policies must be more targeted and be flexible according to the qualifications of firms in need and the appropriateness of subsidies, matching the development stage at the life cycle to enhance core competitiveness and realize positive effects on green technological innovation which must ensure sustainable development.

Managerial apprehension and government subsidies in Bangladesh require controlling variables. Government subsidies may promote green innovation; however, regulatory capture has a negative role in the regulatory process of environmental regulation promoting green innovation of firms. The regulatory behavior requires more accurate indicators to provide verification of results on the impact of green innovation effects. The mechanism between capital misallocation, green development, and technological innovation leads to more efficient socio-ecology environment. Incorporating capital allocation into technological innovation in an analytical framework promotes regional green development efficiency. Regarding heterogeneity, the effect of capital allocation is significant. Capital allocation has a positive relationship with technological innovation, enhancing the input of the firms with an impact on green development efficiency.

The regulatory capture leads to different green innovation behaviors. The regulatory capture has a distorting effect on the high-quality substantive green innovation incentives leading to economic consequences of the environmental regulations. Regulatory capture has a negative effect on environmental regulation in promoting firms as the explanation for the different green innovation behaviors. Environmental guidelines need to tend to influence green innovation of growing and mature firms

at the highest level, while the startup stage has the lowest impact due to the available resources in capital, technology, and talent for which green entrepreneurs are being needed. Green technology innovation capabilities of firms, green product innovation capabilities followed by green process innovation capabilities, and governance technology capabilities are being promoted by firms. As such successful green entrepreneurs can reflect events to boundary capital flows as they pursue to retain around gradation of monetary and fiscal policy mix-up to control the macroeconomy of the country.

Environmental regulation affects the firm's green innovation through the mechanisms of innovation compensation and compliance costs. The scientific design of environmental regulation policy tools must be strengthened to monitor the emission reduction and conduct green innovation. Environmental regulation intensity must be enhanced according to the specific situations of firms. Firms that bear excessive environmental costs must be inclined to regulatory capture rather than improving green technological environmental protection which may destroy the incentive mechanism with extended time and higher costs.

Governments in policymaking and stakeholders must facilitate organizational green strategies to invest in technological innovation projects aimed to reduce environmental pollution. Policymaking need to strengthen institutional quality and enact more effective policies to address the environmental challenges. The different impacts of institutional environments must take the research model. Institutional environment is relevant in factor allocation and environmental performance.

Firm differences in ownership, life cycle, size, etc., have a significant impact on the environmental regulation green innovation incentives. Environmental regulations and green finance have effects on green technological innovation which helps green entrepreneurs. The green finance levels on green innovation have heterogeneous impacts with a moderating effect on environmental regulations. Green finance, green innovation, and environmental regulations tend to be stable with fixed effects so that employability can be created. Green marketing is also another essential element for ecologic balances and organizational resilience.

Green finance and environmental regulations have effects on green innovation. Environmental regulation is a moderator is used to examine the effects. Regional green innovation can be measured by the level of contribution of green finance and the green patent application. Governments must support with fiscal incentives and financial subsidies the development of innovative firms encouraging more flows of capital into the green technology innovations and clean processes. The study observes that subsidies do not explain the gap between the green technological innovation behaviors and rather depends on green entrepreneurs' efficiency and effectiveness to propel macroeconomy of the country. Green economy, as a method to attain sustainable development, is mandatory for green enterprises while product and resource markets for both are being required.

Future research in applying population socio-ecology principles and assumptions examine organizational sustainability in organizations for creating green entrepreneur in the world with accelerating macroeconomic prospects. Moreover,

research for measurement methods must separate the individual effects of the mechanisms of government subsidies and regulatory capture on green entrepreneurial behavior with different inspirations and creativities and usage of knowledge and skills with technological innovation free from creative destruction's negative role.

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Chapter 4

Current Issues in Entrepreneurship in Oman



Hafiz Wasim Akram

4.1 Introduction

Entrepreneurship involves the ability and readiness to set up and run a business, taking all the financial risks to make a profit. In recent years, it has become an essential aspect for all people and governments because it is a source of jobs for the people and can be used for economic dynamism in a rapidly globalizing world (Ratten, 2021, 2022; Saiz-Alvarez, 2021). Entrepreneurship has achieved enormous significance worldwide because it accelerates economic growth for developing and developed nations. A country can create wealth using entrepreneurship activities. According to Saiz-Alvarez (2021), entrepreneurship entails exploring an opportunity in the market and gathering resources to exploit the opportunity in the long term for financial and development gains. Therefore, in entrepreneurship, an opportunity must be identified in the market, and entrepreneurs arrange the available resources to utilize the opportunity. The success of entrepreneurship can be measured through the economic and financial profitability gained.

According to Suchek et al. (2022), economic development and entrepreneurial activity are two-related concepts because entrepreneurs are the leading drivers of economic growth in all nations. Entrepreneurship deals with the entrepreneurs' behavior and the main competencies required in business. However, there is an evolving nature in entrepreneurship because of the recent changes occurring worldwide. The rise in networked economics has contributed to increased changes in entrepreneurship, where people are changing the policies and regulations in the business field (Akram, 2022; Suchek et al., 2022). The emergence of new technologies has contributed to the transformation of entrepreneurship. Business people find it easy to travel from one economic block to another in search of new opportunities.

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Entrepreneurs find it easy to create programs and collaborate with specialized items when doing business.

Entrepreneurship has the potential to support economic growth. However, the government must set up a policy to create a sustainable culture among entrepreneurs. The more people develop entrepreneurship thinking, the more the economic growth in that country will spearhead. The debate about the value of entrepreneurship in a country has almost been settled in developed nations. Many people have noticed entrepreneurship's ability to spearhead the economy's growth and ensure that infrastructure is evolving (Suchek et al., 2022). Unfortunately, this is different in developing nations. In countries with developing economies, an adverse macro-environment and infrastructure contribute to channeling entrepreneurship to unproductive and unhelpful economic sides.

Some countries with good entrepreneurship but are directing it in the wrong directions include some nations from the Middle East. However, some governments have recorded an increase in new entrepreneurial activities, like Oman, where there is the development of promising initiatives required in entrepreneurship. The Sultanate of Oman has developed policies and strategies to ensure growth in entrepreneurship in the country (Khan et al., 2022). Khan et al. (2022) explain that despite the outbreak of COVID-19, the country has remained resilient in its entrepreneurship programs because the government supported its small and large businesses. The paper explains the current issues in entrepreneurship by focusing on Oman entrepreneurship and the challenges facing entrepreneurs in that region.

4.2 Overview of Entrepreneurship in Oman

Oman is a small developing state in the Middle East with fewer than 4 million population. The government has a good reputation for international trading and has been trading for over 200 years. Entrepreneurship has been favoring the Sultanate of Oman since it is geographically located on east–west trade routes. Currently, the country is known for its involvement in crude oil drilling and refining, although historically, it was known for participating in agricultural and fishing activities (Muthurman et al., 2020). Oman has different agricultural regions, which makes some areas rely on rainfall for agriculture while others rely on irrigation for practicing farming. Before the country ventured into crude oil production and refining, agriculture accounted for a more significant part of the nation's gross domestic product.

In the 1960s, the main entrepreneurship activities were agriculturally based. In the 1980s, trading of agricultural-related products declined due to various factors, which included rural to urban migration, lower water tables, and shortage of rainfall. The top agricultural products include grapes, walnuts, apricots, and peaches. Before 1990, fishing was the second-best economic booster after farming, leading to many people's involvement in business activities related to fishing (Khan et al., 2021). Fishing activities are primarily carried out in the Gulf and the Arabian Sea. Various fish included; sardines, bluefish, sharks, and tuna. The fishing sector started facing

into non-oil export businesses. The Oman government has been on the front line in ensuring that it revives the agricultural and fishing sector to diminish the country's economic overreliance on the oil business. In conjunction with the United States government, the government of Oman formed the Joint United States-Oman Commission to fund the people involved in the fish business. The commission also financed the Oman Development and Management Project, which helped reinforce the practical, managerial, and supervision skills of the Directorate General of Fisheries Resources (DGFR) (Saqib, 2020). Similarly, the commission has helped support the public sector; thus, entrepreneurs do not fear investing their money in the fishing sector. Through the DGFR, the government has worked tirelessly to invite entrepreneurs into the fishing sector. Humanizing the capability of the DGFR helps properly accomplish Oman's fishing resources. Similarly, DGFR has been providing fishing industry entrepreneurs incentives, allowing them to remain in their businesses. The provision of subsidies to the people in the fishing and agricultural sector in terms of fertilizers and cold storage facilities has made many people reconsider investing in the two industries (Alshubiri et al., 2020).

Oman has an absolute monarchy political framework, whereby the Sultan is the head of the government and the head of state. Monarchy governments are usually hereditary, and thus, the Sultan appoints their successor. Absolute monarchy governments have tightened security levels, which has been the case in Oman. High security provides entrepreneurs with an enabling environment to carry out business (Akram & Sanyal, 2022; Shults, 2022). Thus, many Oman citizens and expatriates consider investing in Oman as a less risky investment, and therefore, they tend to invest seriously.

Being a developing country, Oman has adopted traditional business practices. Since the world has moved to modern technology to facilitate efficient production, the Oman government is still trying to adopt more modern techniques to remain relevant. Embracing modern technology has boosted entrepreneurship since it has helped come up with other practices as value addition. Technology has created many business opportunities and employment and thus increased engagement (Sameer et al., 2022). The quality of produce is boosted where there is value addition; therefore, there is an increase in goods for exportation since the quality is good. The Oman government has adopted new technology in the mining, agricultural, fishing, and oil production sectors to boost entrepreneurship in the country, thus extending the economy.

Although many employers have criticized Oman's educational system as one that has minimal impact on innovation and creativity, the government has developed a policy, whereby the number of higher education institutions has increased. Increasing the number of learning institutions gives learners the right environment to be creative and innovative (Cummings, 2018). The higher learning institutions in Oman have been offering free education to Oman citizens to equip them with skills since many skilled people have been expatriates. By doing so, entrepreneurship in the country has been boosted since many students have changed their perspectives on education and know that education offers them the opportunity to create employment rather than job seekers.

To realize vision 2040, the Oman government has been drafting new laws intending to strengthen the private sector players in the country. Similarly, the government has constructed new bodies to aid in privatizing businesses in the country. The laws and the bodies have helped attract more investors to the country and thus boost entrepreneurship. One of the projects done by private sector players in Oman is the independent power project (IPP) which was awarded to Manah power project, a privately owned company, in 1994. The public–private partnership (PPP) has enabled foreign investors in Oman to hold up to 100% of onshore companies, which has boosted entrepreneurship in the country (Al Sinani et al., 2021). In countries with PPP, new initiatives are developed since the private companies aim at making revenue, and as such, they must be innovative to maximize the return on their investment. The Oman oil industry, for example, has been dominated by expatriates as prominent investors after the government.

Since Oman is an absolute monarchy state, there is well-established legal system which facilitates the passing of laws more quickly to adapt to changing environments. Many governments worldwide are advocating for PPPs to boost their economy, and with the well-established legal system, the Oman government finds it easy to adapt to these circumstances. Similarly, Oman has well-organized international banking standards and regulations which encourage investment and entrepreneurship in the country (Shults, 2022). Adopting the international banking standards has facilitated the availability of investment funds to investors, and this has played a crucial role in moving business ideas from the mind into action.

4.3 Status of Entrepreneurship Ecosystem of Oman and Improvements Required

For the Oman government's economy to thrive, there must be peculiar arrangements made up of various codependent actors. The codependent actors are crucial in creating new ventures and developing existing experiences. Oman's entrepreneurship ecosystem is in the developmental stage since the country is growing (Al-Abri et al., 2018). The ecosystem has been integrated with various stakeholders helping to create a favorable environment for investment. The Oman government has been overlying on oil and gas mining, which can cause economic instability in times of oil and gas price drops. To cover the risk of instability, the government has considered boosting the private sector to act as a GDP instrument.

Like developed countries, Oman has been working to modernize its interparental ecosystems to achieve the best performance in its industries. The entrepreneurship ecosystem in Oman has faced the challenge of a hostile macro-environment and lack of modern infrastructure, making entrepreneurs reluctant (Faghih & Zali, 2018). Currently, Oman's entrepreneurial ecosystem is unstable since many people are unemployed and many businesses are informal. Although the country has embraced PPP, there is a high dependency on government institutions in all the economic

sectors. There are various pillars that the Oman government can assume to have a stable entrepreneurship ecosystem: human capital workforce, education and training, market access, funding and finance and culture.

4.3.1 Human Capital Workforce

When there are large amounts of human capital, the achievement of a modern knowledge economy is made possible. In Oman, many citizens lack the skills to run businesses, which has delayed economic growth effectively. The Oman government has been actively involved in incorporating local labor in public and private sectors since many of the professionals in Oman have been expatriates (Al-Abri et al., 2018). The Oman government has developed a job nationalization program to help locals get the priorities when employment opportunities arise. The government should come up with similar programs to ensure that the skills local citizens get the right opportunities to serve.

4.3.2 Market Access

Government rules and regulations are crucial in getting the right marketplace for produced goods and services. The Oman government has an open market strategy that helps establish local and overseas investments in many parts of the country. Oman's main export has been oil products, which has resulted in less export contribution to the GDP (Alqassabi, 2020). The government should motivate its citizens to venture into other sectors like agriculture, fishing, and other mineral mining as they seek to find strong links to the export marketplace. Finding a solid marketplace will boost entrepreneurship since the new business will emerge.

4.3.3 Education and Training

Education and training equip an individual with interparental knowledge in different fields. An educated and well-trained individual can establish, run, and develop a versatile business. The education sector in Oman has not been offering a business-linked curriculum, thus making students graduate without realizing their talents. Oman has a high proportion of illiterate and jobless youths (Langthaler, 2021). The government has invested heavily in higher learning institutions to offer free education to their citizens. In addition to building higher learning institutions, the government must structure a business-linked curriculum in the education sector to see a stable entrepreneurship ecosystem.

4.3.4 Funding and Finance

Citizens are motivated to new entrepreneurship opportunities when there is funding. Offering finances to small and medium enterprises increase the number of businesses in the country, thus creating a stable entrepreneurship ecosystem. Many people in Oman have had a challenge acquiring adequate finances to run their businesses since they lack historical financial proofs to help determine their creditworthiness (Yoshino & Taghizadeh-Hesary, 2018). Although the government has been offering funds to investors in the agricultural and fishing sector and having seed capital, this is not enough since the country has many potential entrepreneurs in diverse sectors (Al-Abri et al., 2018). The government should develop regulations protecting SMEs and encourage financial institutions to offer affordable loans to SMEs without asking for many details. Similarly, the government should fund the youth with zero-interest loans to enable them to be innovative and creative since that is what entrepreneurship entails.

4.3.5 Culture

An existing culture in a particular community plays a crucial role in determining the future of the youth. Many Asian countries like Oman have the culture that a government or a formal job is essential compared to entrepreneurship, which makes entrepreneurship in Oman a challenge. This culture discourages the entry of innovative business people into Oman. The government and the local leaders should change their social customs and approaches to business (Shaukat & Madbouly, 2019). Similarly, the government should offer incentives and subsidies to people venturing into business-related activities to encourage people to think business-wise to create a stable entrepreneurship ecosystem.

4.3.6 Infrastructure

Infrastructure is one of the necessary facilities entrepreneurs need to expand their existing businesses and potential entrepreneurs for their start-ups. Infrastructure is boosted by building state-of-the-art buildings, modern roads, and modern railways. Oman is an average country in terms of infrastructural developments. Although the country is prone to frequent floods, the government is investing in projects expanding road networks and air and sea transport. Similarly, the government is investing in information technology parks like the Knowledge Oasis Muscat (KOM), which

was built to host regional and international businesses (Al Mahrooqi & Backhouse, 2020). KOM has been hosting big firms like Microsoft Company. The government should focus on and sign PPP deals for private investors to assist in infrastructural developments.

4.4 Major Challenges Facing Oman Entrepreneurs

A country's economy lies better in industrial growth and technological advancement. The increasing phase of globalization is causing different nations to concentrate on entrepreneurial activities. Entrepreneurial activities have become one of the most critical issues in Oman over recent years. The increasing unemployment rate in the country has contributed to creating more opportunities for the people. Yasin and Khansari (2022) explain that the unemployment rate in Oman rose from 15.80 to 16% between 2016 and 2017. Oman is one of the nations affected by the reduction in crude oil prices in the global market. The Sultanate of Oman is heavily working to reduce the country's dependence on hydrocarbons. The government is looking for other diversification methods to enhance its economic growth.

The diversification of the economy contributes to more focus on entrepreneurial activities in Oman. However, despite the government allowing for entrepreneurship to occur in the public and the private sector, there are challenges that the entrepreneurs experience both in large and small-scale enterprises. The challenges experienced by entrepreneurs in Oman limit the country's capacity to produce adequate entrepreneurial capacity because it reduces the business practices occurring (Yasin & Khansari, 2022). Likewise, it is surprising that the same challenges have occurred over the last 15 years. The government has not done perceptible amount of work to control the challenges.

4.4.1 Lack of Adequate Finances

Entrepreneurs in Oman are experiencing a challenge in raising enough capital to start and support their businesses. In Oman, there is no venture capital, making it difficult for entrepreneurs to get enough money to help them promote their enterprises. For a company to start, the entrepreneurs need adequate finance to promote their operations (Muthuraman et al., 2021). When entrepreneurs from small and large enterprises require bank loans, it is challenging because of the procedures followed. According to Muthuraman et al. (2021), the financial system in Oman makes it difficult for people to access loans that they can use to support their enterprises. As a result, most entrepreneurs lack the capital to start and maintain their entrepreneurship. For instance, when entrepreneurs apply for loans in Oman, the financial institutions take a long time to process and disburse them. Hence, it is difficult for Oman entrepreneurs to welcome any entrepreneurial opportunity.

The government does not intervene in the small enterprises to get finances for their businesses. Entrepreneurship is vital for any country willing to grow its economy. The government is responsible for protecting the entrepreneurs by supporting their operations. However, in Oman, it is different because the government does not set policies that allow financial institutions to reduce the requirements for financing businesses. According to Abd El Basset et al. (2022), financial institutions prefer to finance already established businesses.

4.4.2 Reluctant to Using Modern Technology

In the Global Information Technology Report of 2015, Oman was ranked 44th nation-wide for networked readiness (Obi & Iwasaki, 2015). The country has been advancing in its technology. However, this does not mean adequate technology in the nation. The Sultan of Oman has been improving the level of technology in the country to reach the global level. The infancy of the technology in Oman makes it challenging for entrepreneurs to apply it in their operations. As a result, people are reluctant to engage in modern technology. Few entrepreneurs have adopted new ways of doing business because of the slow improvement in technology in the country. Likewise, the entrepreneurs lack the required experience and skills in research and development using modern technology. The culture of using modern technology in business is different, with many entrepreneurs considering using manual processes.

4.4.3 Poor Marketing Conditions

Oman's main export is oil products. The country has been making policies that support entrepreneurs to enhance its diversification from the dependence on oil products. The GDP for Oman in 2020 was \$ 63.19 billion, which marked an improvement in the economy since 2001. The country generates 84% of its income from selling oil and oil-related products (Hamid et al., 2022). When making policies on exports and market issues, the government of Oman is specific and strict on the policies and procedures followed in the oil industry. However, this is not similar to other entrepreneurial activities. The country has not set clear policies which protect non-oil products and help entrepreneurs compete in the global markets. The poor policies limit the operations of non-oil operators in the local and international markets (Al-Abri et al., 2018). However, despite the challenge, the non-oil products have recorded a 91% jump in 2021 because of the increased demand for the products in the international market.

4.4.4 Rigid Labor Regulations

In Oman, the labor law was issued by His Majesty's Decree No 35/2003 (Figgins et al., 2018). The regulations apply to all Oman citizens and expatriates working in the country as employers or employees. The Ministry of Manpower is responsible for the control of the labor market with contributions from the employers, employees, and the government. Through its labor law, the government sets the policies and regulations to which all the stakeholders in the labor market should adhere when operating. Figgins et al. (2018) explain that the government has set a policy to reduce the number of foreigners who run businesses nationwide. Many entrepreneurs in the public and private sectors find it challenging to function effectively because of the lack of adequate skilled and experienced personnel in Oman.

In 2021, approximately 5041 expatriate jobs got replaced in the government sector by the Omanis (Ansari & McGlade, 2018). The move was made to reduce the country's unemployment rate, rising over the past few years. Similarly, 3010 jobs for expatriates from the private sector were secured and given to the Omanis. Around 205,000 non-Omani workers left work in the private sector, and at least 13,000 non-Omani employees were released from government jobs. The rigid laws in the labor market affect Oman entrepreneurs because they are limited in the number of expatriates to employ. According to Ansari and McGlade (2018), non-Oman workers are brought to the country because of their skills and experience. However, when there is a limit on the non-Oman workers, this shows that the entrepreneurs in the country will only have access to the less skilled and experienced Omanis. In return, this can contribute to ineffectiveness and increased errors in operations, making entrepreneurs lose.

4.4.5 Lack of an Educated Workforce

In 1988, the Omanization policy was enacted to help reduce expatriates in Oman and give their jobs to the Omanis. The Sultanate of Oman comes with new ways to ensure that there is an achievement of the policy. However, this issue continues to hurt the entrepreneurs in the country. According to Thottoli (2020), many CEOs and business directors in Oman claim that the education system cannot produce a qualified workforce that can meet the increasing labor demands in the market. Oman has a vast unutilized workforce, hence contributing to increased unemployment. However, most of Oman's workforce comprises uneducated people who cannot take leadership positions or initiate enterprise projects.

Oman's teaching-work force reported a lack of practical and pedagogical skills among the teachers that can enable them to work in modern schools. The government has increased its support for education over the last decade. In Oman, the public expenditure on education rose to 26.1% of total government costs. However, the teachers lack the necessary skills which they can instill in learners and make them

ready for the business world despite the increasing educational reforms. In turn, this makes the people outgoing from the learning institutions lack the necessary experience and skills.

4.4.6 Lack of Work Culture

In Oman, people have a corporate behavior that prevents them from engaging in entrepreneurship. People's culture can either support business growth or prevent it. The youths in Oman are reluctant to join the private sector and offer labor services. The introduction of Omanization in Oman affected the private sector because many businesses had to do away with the expatriates to employ the Omanis (Ansari & McGlade, 2018). However, CEOs in the private sector argue that the government interrupted entrepreneurship by adopting Omanization. The private sector in Oman finds it challenging to get an adequate workforce. The government set fewer public holidays and extended hours to develop a specific culture among the Omanis, making it hard for them to work in the private sector. As a result, this affected the small and large enterprises in the private sector.

4.5 Summary and Toward the Future

Worldwide entrepreneurship is developing at high speed. Countries are relying on competent with high skilled labor and resources. Oman is among the Middle East nations which are transforming at a high rate. The government aims to achieve its international status in all sectors by supporting entrepreneurship to become a worldwide exporter of different non-energetic products. The contribution of SMEs and entrepreneurial individuals to Oman's economy in terms of innovation and the creation of employment is well documented (Al Jabri et al., 2022). The government Websites for Oman consist of information on how the country has transformed since it adopted entrepreneurship as a significant activity toward diversification from oil reliance.

Oman has a public bank called the Oman Development Bank, established in 1976 to reduce unemployment through different plans and offer low-interest loans to business people. The bank's policy was that when applicants got access to the loans for their businesses, they would start repaying them after 12 months (National Youth Program for Skills Development, 2020). The timeframe would give the entrepreneurs a grace period to grow their firms and manage to employ more people.

Creating a national youth program for developing skills among the Omanis was another plan for the future. The government noticed that many employees lack adequate skills and experience to run and manage entrepreneurship. Therefore, on May 29th, 2018, the Royal Court established a new national youth program to enhance

skill development among the people (National Youth Program for Skills Development, 2020). The program, which has been in progress preparing the people for entrepreneurship opportunities in future, has been in partnership with an independent HR services firm.

The Sultanate of Oman continues its development where the policymakers are concerned about the lack of employment opportunities in the country. The government advocates for children and adults to acquire education in the public institutions within the nation because this can increase their knowledge in managing businesses (Al Aufl et al., 2022). Oman is becoming a hub of entrepreneurship, with the government's main focus on reducing the unemployment rate by changing the people's mindset. The Sultanate of Oman has developed policies that encourage entrepreneurs. For instance, Omanization is a drive that the government pursues to reduce the number of expatriates working in public and the private sector. However, the drive was also essential in ensuring the Omanis get access to jobs within their country. Great leaders and entrepreneurs are the ones with adequate experience in their work. As a result, the Omanis' exposure to the business world will give them the required expertise to operate their enterprises.

Since Oman has received several start-ups, the main aim is to see them grow in future. The local entrepreneurs and small enterprises have been playing their role in ensuring growth and prosperity among the people in Oman by creating job opportunities. As a result, this is shaping the lives of the people in Oman by powering the Sultanate's diversification strategy to employment. In future, Oman's entrepreneurship will face challenges as global opportunities continue to present themselves. The digital economy is the main target for the entrepreneurs in Oman as they continue to explore options in the global markets. The businesses aim to offer more products to the international market and help improve Oman's economy.

Ithraa's Director General explained that entrepreneurs plan for a burgeoning economy that supports firms by collaborating to ensure that start-ups get finance, advice, guidance, mentorship, and adequate office space to manage their operations and help reduce the unemployment rate. Oman sets up the Oman Technology Fund, which aims to put the country in the middle of the knowledge leaders across the Middle East (Al Abri & Matriano, 2021). The government plans to become an innovative hub by sponsoring technological developments supporting entrepreneurship. Technology-assisted education is an example of the adoption of technology in a country. Like other nations, Oman has not been left behind in new ways of teaching and training students using the new technology.

When focusing on the future of entrepreneurship in Oman, various motivations need to get considered. One of the factors involves economic factors. The entrepreneurs can get motivated to put more effort into business with the desire to get more financial gains from their enterprises. As per the literature available, the primary aim of starting a business in the private sector is to make profits and improve people's living standards. Therefore, when people get motivated through

the financial gains from the company, this can influence them to participate more in entrepreneurship in future.

In conclusion, the changes, the Sultanate of Oman has made in its policies to support entrepreneurship countrywide, have helped the country reduce its reliance on oil products. Opening access to people to get education and training has proved successful for entrepreneurs because it gives them the experience they require. As the country heads to the future, there is a need to focus on digital technology as this is the new trend in entrepreneurship worldwide.

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Chapter 5

Lessons Learned in the Recovery of Business Performance from the COVID-19 Endemic: The Importance of Working Capital Management and Financial Management



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5.1 Introduction

The COVID-19 pandemic that occurred at the end of 2019 not only had a negative impact on human health, but it also had a negative impact on the economies of various countries. The restrictions on social activities during the COVID-19 pandemic have disrupted the supply and demand system and slowed down economies around the world. In Indonesia, the impact of the COVID-19 pandemic is being felt by various economic sectors, including micro, small, and medium enterprises (MSMEs) (Adam & Alarifi, 2021). The results of a survey by the Ministry of Cooperatives and MSMEs on 37,000 MSMEs showed that 56% of businesses experienced a decline in sales, 22% experienced financial difficulties, 15% had difficulty distributing products, and 4% had difficulties in getting raw materials (Setyoko & Kurniasih, 2022). The decline in sales resulted in working capital obstacles, so that MSME actors needed credit access to funding in order that MSMEs could survive or even have good performance during the pandemic (Nufus et al., 2021).

The government made various efforts to restore economic conditions which had experienced a contraction of -5.3% in the second quarter of 2020. These efforts included the recovery of MSMEs in the form of loan interest subsidies, credit restructuring, providing working capital guarantees, and tax incentives (Sasongko, 2020), because MSMEs are one of the largest contributors to the gross domestic product (GDP) and a high provider of employment (Gherghina et al., 2020). The funding

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access facility from the government is expected to help MSMEs continue to operate and improve their performance during the pandemic and post-COVID-19 pandemic.

Access to funding is believed to be one of the determinants of MSME performance. Choudhury (2018) found that access to funding encourages the growth of MSMEs. MSMEs that have access to funding will be more liquid and more productive (De & Nagaraj, 2014). On the other hand, access to funding has been proven to reduce the performance of MSMEs because high access to funding has the potential to create capital costs that burden businesses (Keiding, 2016; Tioumagneng, 2011). In addition, access to funding was also found to have no effect on the performance of MSMEs (Avouba, 2022). Research on the relationship between access to funding and the performance of MSMEs shows inconclusive results, so it is possible that there are other factors that influence the relationship between access to credit and the performance of MSMEs.

In daily operating activities, the ability of managers to manage MSMEs is thought to be able to influence the increase or decrease of MSME performance (Oyeku et al., 2014), one of which is the adequacy of working capital (Baños-Caballero et al., 2016). Working capital management refers to the optimal balance of current assets and short-term liabilities (Ginting, 2018). The more efficient the use of working capital and the more effective the management of current assets will cause the turnover of current assets to increase, so that the profitability of MSMEs will also increase (Dong et al., 2021; Ginting, 2018). Good working capital management will reduce the firm's costs and risks, as well as increase the company's profitability and sustainability (Laghari & Chengang, 2019; Salehi et al., 2019). Working capital management cannot be separated from the availability of funds or access to funding to fund these current assets. The easier access to funding is accompanied by the ability of MSMEs to pay for these loans, the smaller MSME cash holdings will be (Chen & Kieschnick, 2018). MSMEs tend to use short-term financing to fund investments for current assets (Eniola & Entebang, 2015), so it can be said that access to funding will determine the adequacy of working capital. The previous research focused on testing the effect of access to funding on working capital adequacy and exploring the effect of working capital adequacy on MSME performance separately. Therefore, this study will simultaneously examine the two relationships and the role of working capital adequacy as a mediator to determine the direct and indirect impacts of the resulting relationships between variables.

Good financial management capacity is one of the essential factors in running a business, including even the micro and small scale. Poor financial management has proven to be a trigger for business failure in MSMEs (Karadag, 2015). On the other hand, good financial management will encourage MSMEs to be better prepared to face business challenges and survive in the face of future business turmoil (Salikin et al., 2014). This is related to the role of financial management in shaping the competitive advantage of MSME entrepreneurs (Songling et al., 2018). More specifically, the previous research found that financial management in the form of cash flow management and financial data-based decision making is more relevant in shaping business performance (Wolmarans & Meintjes, 2015). In relation to access

to funding, good financial management can moderate the role of access to funding toward MSME business performance (Bongomin et al., 2017). Therefore, this study will also place financial management as a moderator of the effect of credit access on business performance.

In summary, this study aims to examine the effect of access to funding on business performance with working capital management as a mediator, as well as add financial management as a moderator in order to obtain a holistic study related to the inconsistency of previous findings. Theoretically, this research contributes to producing a predictive model of MSME financial performance by involving mediating and moderating factors that have not been covered by the previous studies, especially those carried out during the transition to the endemic toward the MSME creative sector in Indonesia. For MSMEs, this research is useful as a reference on what internal factors can improve business performance in order to survive during the recovery period due to the pandemic. For the government as a regulator, the results of this study can be used as policy considerations/immunities related to financial assistance, training, and assistance programs for MSME owners.

5.2 Literature Review

Limited capital is a common obstacle in the growth of MSMEs, so that access to credit can be an opportunity for MSMEs to obtain additional business capital (Cheong et al., 2020) (Inadequate access to finance is an obstacle for MSMEs to develop their business potentials (Chowdhury & Alam, 2017). The pecking order theory explains that internal funding sources are more desirable than the use of external funds because the costs are cheaper; for example, business owners do not need to pay interest on debt (López-Gracia & Sogorb-Mira, 2008). However, if internal funds are not sufficient to support business activities, debt financing is preferred over having to add equity from external parties (Ahmad & Atniesha, 2018). Debt stimulates MSMEs to invest in assets and working capital that drives productivity, so as to increase turnover and business profits which in turn can maintain business continuity and growth (Badi & Ishengoma, 2021). So as long as debt financing is used for productive investment activities, the availability of credit access can have implications for improving business performance. This is in line with the static trade-off theory which explains in terms of cost benefits, where if the benefits of debt financing are higher than the costs incurred, the use of debt can be applied to improve business performance (Obuya, 2017).

Several studies have shown that access to financing in the form of debt increases the profitability of MSMEs (Badi & Ishengoma, 2021; Myint, 2020; Obuya, 2017). Nevertheless, financing through debt also needs to be considered so as not to burden MSMEs when they have to pay their obligations. Githaiga (2015) confirmed that access to credit can actually have negative implications on business performance, which is estimated to be due to the lack of ability of MSMEs to manage debt properly.

H1: Access to credit has a significant effect on firm performance.

Working capital has a strategic role in increasing business profitability (Deloof, 2003; García-Teruel & Martínez-Solano, 2007). Working capital is used to fund a company's daily operational activities, such as buying raw materials and paying employee wages for a smooth production process. In addition to using their own capital and credit for suppliers, MSMEs often use debt as a source of financing due to limited access to the capital market (Padachi et al., 2012). Ojonta and Ogbuabor (2021) demonstrated that the availability of access to credit can have a positive impact on working capital. Access to credit obtained is used to fund working capital (Chen & Kieschnick, 2018), such as buying supplies of raw materials so that the production process is not hampered or increasing the production capacity so as to generate higher sales and profits.

However, utilizing debt, which has implications for the emergence of fixed expenses, also needs to be considered so as not to hamper daily operational activities. Several studies have shown that the use of debt has a negative impact on working capital (Mathuva, 2010; Singh & Kumar, 2017). The greater the use of debt, the higher the interest expense and installments that must be paid so that it can cause cash that should be used for daily working capital in the end to decrease.

H2: Access to credit has a significant effect on working capital management.

The ability of MSMEs to manage working capital efficiently can have an impact on improving business performance (Bhattacharyya & Jagadeesh, 2018). Efficiency of working capital management aims to accelerate the conversion of raw materials into sales or cash. The cash conversion cycle theory explains that the management of working capital as measured by the cash cycle has a negative effect on profitability by accelerating the inventory age, quickening the receivables collection, and slightly delaying obligation payments (Oseifuah & Gyekye, 2016). In other words, a short cash cycle allows businesses to get cash faster that can be used to purchase additional raw materials or pay off debt (Corpuz & Bool, 2021; Muneria & Otinga, 2019).

Several previous studies have demonstrated that the faster the cash conversion cycle, it is proven to increase business profitability (Braimah et al., 2021; Deloof, 2003; Raheman et al., 2010). The short cash conversion cycle indicates a speed in the sales cycle that can increase sales realization, so that in the end, it can increase business turnover and profitability. However, there are studies that prove otherwise, in that a longer cash cycle can actually increase business profitability (Abuzayed, 2012; Nastiti et al., 2019). This is due to the need for business considerations to ensure adequate working capital in order to increase sales and business profits. This decision has implications for high investment in working capital so that it will prolong the cash cycle.

H3: Working capital management has a significant effect on firm performance.

The cash conversion cycle theory explains that the efficiency of working capital management aims to accelerate the conversion of raw materials into sales to generate cash so as to increase business profitability. The faster the raw materials are processed,

sold, and generate cash, the higher the sales and profits that can be generated. Muneria and Otinga (2019) explained that the shorter the cash cycle, it means that a business has the opportunity to use the cash received to repurchase raw materials. Then, the raw materials can be processed to generate sales faster, so that in the end, the total realized sales will be higher. There have been studies that have proven that the shorter the cash cycle, the higher the profit generated (Braimah et al., 2021; Deloof, 2003; Yazdanfar & Öhman, 2014). Also, the length of the cash cycle of this business depends on how the business manages working capital.

Baños-Caballero et al. (2016) explained that working capital management needs to be considered because it can have a negative or positive impact on business performance. This has also been shown by the previous research which reveals that a longer cash cycle can actually increase business profitability (Nastiti et al., 2019). Business considerations to shorten the cash cycle by not investing a lot of working capital, on the other hand, can actually reduce sales realization, so that the decision to increase investment in inventory actually has a positive impact on business profitability because it can minimize stock-out risk.

Working capital management that pays attention to the business environment will strengthen the effect of working capital on business profitability (Yuliani et al., 2021). The internal business environment related to the ability to manage finances is a capability that must be possessed by MSMEs if they want to develop a business (Jindrichovska, 2013). Therefore, the ability of entrepreneurs to manage finances can strengthen the influence of working capital management on business profitability. With the capacity to manage finances better, the stronger the influence of working capital management will be on business performance.

H4: Financial management significantly moderates the effect of working capital management on firm performance.

Working capital management is crucial considering its impact on profitability (Hoang, 2015; Nastiti et al., 2019), risk (Bolek, 2013; Usama, 2012), and even firm value (Arachchi et al., 2018; Vijayakumaran, 2019). Baños-Caballero et al. (2016) explained that working capital funding needs to be considered because it can have a negative or positive impact on business performance, and debt is one source of working capital funding. Based on the static trade-off theory, the use of debt is an alternative choice as long as it can provide greater benefits than the costs.

Anggraeni et al. (2013) revealed that access to credit used for working capital investments provides greater benefits when compared to when MSMEs invest their credit for long-term investments. Through investments in productive assets, MSMEs can increase turnover, money circulation, and realization of sales and profits received. Konak and Güner (2016) found that effective working capital management will be able to play a role in company performance. Therefore, it is suspected that access to credit used for investing in working capital can improve business performance. In other words, working capital is thought to be a variable that mediates the effect of credit access on business performance.

H5: Working capital management significantly mediates the effect of credit access on firm performance.

5.3 Methods

This study used a quantitative-explanative approach by involving all *batik tulis* SMEs registered at the Cooperative and MSME Agency in Rembang Regency and Pati Regency, Central Java Province, Indonesia. There were 125 *batik tulis* SMEs located in these two research objects. After verifying the number of MSME firms that were still operating during the pandemic, our sample had 102 MSMEs. This study was conducted during the COVID-19 endemic transition period in Indonesia in April–August 2022. Questionnaires were distributed on-site to MSME owners in both locations.

The research variables consisted of working capital management and firm performance as endogenous variables, credit access as an exogenous variable, and financial management as a moderating variable. The access to credit variable was proxied using three indicators, namely the adequacy of the amount, the ease of applying, and the frequency of obtaining credit (Duan et al., 2009; Kuku & Biswas, 2014). The working capital management variables were operationalized into four items: cash ownership, sufficient raw materials to support operational activities, receivables that could be collected on time, and short-term debts that could be paid on time. For firm performance, we adopted indicators from Ma et al. (2020) and Simon et al. (2015) which consisted of financial and non-financial performance. Finally, the financial management variable was represented by five question items, namely recording all business transactions, classifying sales and purchase transactions, compiling simple financial reports, separating business income from personal money, and separating business expenses from personal expenses (Franco et al., 2021).

The respondents in this study expressed their opinions in the form of an agreement or disagreement which was measured using a five-point Likert scale, namely: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. The data was processed using SEM-PLS, both for testing the inner and outer models.

5.4 Results and Discussion

The objects of this research were 125 *batik tulis* MSMEs registered with the Cooperative and MSME Agency in Rembang Regency and Pati Regency, Central Java Province, Indonesia. From the results of the data collection, 102 respondents were obtained from the two research locations. When viewed from the gender distribution, the proportion of males and females was relatively balanced. This indicates that both men and women have the same interest in pursuing a *batik tulis* business. Most of the entrepreneurs had their highest education at the high school/equivalent level

Table 5.1 Respondents' characteristics

Category	Distribution	
	Total	%
<i>Gender</i>		
Male	46	45
Female	56	55
Total	102	100
<i>Education level</i>		
Elementary school	14	14
Middle school	13	13
High school/equivalent	29	48
3-year diploma/bachelor's degree	25	25
Master's degree	1	1
Total	102	100
<i>Years of experience</i>		
0–5 years	6	6
6–10 years	38	37
11–20 years	40	39
More than 20 years	18	18
Total	102	100

Source Processed primary data (2022)

or 3-year diploma/bachelor's degree level. This conveys that most entrepreneurs already have adequate educational supplies to learn and perform techniques in entrepreneurship. The batik business in Rembang and Pati has been done for generations as part of a tradition. This is also shown by the business experience of the actors ranging from 6 to 20 years. There are even entrepreneurs who have been doing business for generations from 72 years ago (Table 5.1).

In general, entrepreneurs have access to credit at a moderate level. This means that in general, access to credit is not very difficult but it is also not easy to do. The *batik tulis* business is one that is very closely related to the preservation of local culture and traditions. In general, batik entrepreneurs in Rembang and Pati use risky funding sources at a moderate level. The use of debt that is not extensive may be related to the values of the Javanese people who are relatively less ambitious, including in terms of business. Moreover, the batik business is very closely related to culture and tradition, so it is possible that entrepreneurs still hold firmly to the values adopted by the local community. However, batik entrepreneurs seem to have an innovative investment and strong working capital management. Entrepreneurs make an effort to creatively optimize their existing resources to find better creations, production methods, and ways of doing business. The field data also reveals that in general, entrepreneurs have moderate financial management skills. Not all entrepreneurs have received

Table 5.2 Descriptive statistics

Variable	Min	Max	Mean	Category
Access to credit (AC)	1.88	4.50	2.95	Moderate
Working capital management (WCM)	2.75	5.00	3.78	High
Financial management (FM)	1.33	5.00	3.11	Moderate
Firm performance (FP)	1.43	5.00	3.12	Moderate

Source Processed primary data (2022)

adequate learning related to financial management. In general, it also appears that the performance of batik MSMEs in Rembang Regency and Pati Regency appears to be at a moderate level. This could be related to business constraints that have not fully recovered as before the pandemic (Table 5.2).

5.5 Construct Test Results

The construct test used a reflective first-order by looking at the loading indicators of the items forming access to credit (AC), working capital management (WCM), financial management (FM), and firm performance (FP). The results of the indicator construct test can be seen in Table 5.3.

The test results for the loading indicators in Table 5.3 show that items AC1, AC5, AC6, AC8, WCM1, WCM4, and FP3 have a loading value of less than 0.7 and a *p*-value of more than 0.05, so that these items are deleted. The test results for the loading indicators forming the construct after deleting items that do not meet the requirements can be seen in Table 5.4.

Table 5.4 depicts that all the loading indicators for the construct items have a value greater than 0.7 and a *p*-value < 0.05, so it can be concluded that all statement items are valid. The crossloading to test the unidimensionality of the indicators turns out to reveal that the AC2, AC3, AC4, and AC7 items are clustered in the access to credit construct. The WCM2 and WCM3 indicators are clustered in the WCM construct. Next, the FM1, FM2, FM3, FM4, FM5, and FM6 indicators are clustered in the FMA construct. Then, the FP1, FP2, FP4, FP5, FP6, and FP7 indicators are clustered in the FP construct.

The results of the measurement model evaluation test using average variances extracted (AVE), composite reliability coefficient, and full collinearity VIF can be viewed in Table 5.5.

Table 5.5 shows that the AVE value for each construct is more than 0.5, so that it has met the criteria of convergent validity. Likewise, the composite reliability coefficient value is more than 0.7, so that it meets the internal consistency reliability. The results of the full collinearity VIF test for each construct are very good, where the VIF is less than 3.3, so it can be concluded that there is no collinearity

Table 5.3 Loading construct I indicator test results

	AC	WCM	FM	FP	FM * WCM	Type (as defined)	SE	P-value
AC1	(- 0.166)	0.259	- 0.260	- 0.266	- 0.479	Reflective	0.215	0.221
AC2	(0.756)	- 0.051	0.735	- 0.300	- 0.437	Reflective	0.264	0.025
AC3	(0.775)	- 0.114	0.571	- 0.024	- 0.092	Reflective	0.236	0.013
AC4	(0.812)	- 0.124	0.481	- 0.014	- 0.178	Reflective	0.227	0.007
AC5	(0.483)	0.000	0.897	0.048	- 0.082	Reflective	0.268	0.096
AC6	(- 0.437)	- 0.116	0.405	0.329	- 0.271	Reflective	0.610	0.238
AC7	(0.794)	0.046	- 0.160	0.042	- 0.331	Reflective	0.569	0.010
AC8	(0.063)	- 0.399	0.209	0.136	- 0.187	Reflective	0.238	0.396
WCM1	- 0.471	(0.261)	- 0.159	- 0.187	- 0.592	Reflective	0.377	0.246
WCM2	- 0.188	(0.767)	- 0.133	- 0.357	- 0.567	Reflective	0.359	0.023
WCM3	0.020	(0.974)	0.032	0.077	0.084	Reflective	0.786	0.009
WCM4	0.000	(0.221)	0.142	- 0.092	- 0.584	Reflective	0.403	0.292
FM1	0.056	- 0.016	(0.919)	0.064	- 0.143	Reflective	0.268	< 0.001
FM2	- 0.120	- 0.127	(0.900)	- 0.207	- 0.142	Reflective	0.271	< 0.001
FM3	- 0.023	- 0.116	(0.956)	0.052	0.029	Reflective	0.274	< 0.001
FM4	- 0.102	- 0.041	(0.954)	0.067	0.029	Reflective	0.277	< 0.001
FM5	0.217	0.314	(0.805)	0.067	0.225	Reflective	0.242	< 0.001
FM6	0.174	0.286	(0.802)	- 0.003	0.214	Reflective	0.242	< 0.001

(continued)

Table 5.3 (continued)

	AC	WCM	FM	FP	FM * WCM	Type (as defined)	SE	P-value
FP1	- 0.029	- 0.003	- 0.003	(0.971)	0.029	Reflective	0.059	< 0.001
FP2	0.082	- 0.007	0.052	(0.970)	0.005	Reflective	0.054	< 0.001
FP3	0.107	- 0.370	0.280	(- 0.567)	0.239	Reflective	0.136	< 0.001
FP4	- 0.354	0.083	- 0.443	(0.782)	- 0.293	Reflective	0.083	< 0.001
FP5	0.083	- 0.159	0.054	(0.912)	0.150	Reflective	0.059	< 0.001
FP6	0.297	- 0.370	0.196	(0.778)	0.048	Reflective	0.121	< 0.001
FP7	0.013	0.199	0.420	(0.755)	0.248	Reflective	0.089	< 0.001
FM*WCM	0.000	0.000	0.000	0.000	- 1.000	Reflective	0.120	< 0.001

Source Processed primary data (2022)
Bold means P-value is statistically insignificant

Table 5.4 Loading construct II indicator test results

	AC	WCM	FM	FP	FM * WCM	Type (as defined)	SE	P-value
AC2	(0.701)	− 0.177	0.708	0.263	0.023	Reflective	0.011	< 0.001
AC3	(0.884)	− 0.040	0.210	0.067	− 0.006	Reflective	0.031	< 0.001
AC4	(0.915)	− 0.040	0.145	0.058	− 0.030	Reflective	0.032	< 0.001
AC7	(0.702)	0.048	− 0.222	− 0.076	0.041	Reflective	0.027	< 0.001
WCM2	0.268	(0.738)	− 0.439	0.136	0.743	Reflective	0.026	< 0.001
WCM3	0.004	(0.816)	− 0.006	0.002	0.011	Reflective	0.036	< 0.001
FM1	0.191	− 0.316	(0.898)	− 0.133	0.219	Reflective	0.062	< 0.001
FM2	0.010	− 0.334	(0.867)	0.142	0.175	Reflective	0.067	< 0.001
FM3	− 0.036	− 0.151	(0.946)	− 0.061	− 0.027	Reflective	0.049	< 0.001
FM4	− 0.105	− 0.066	(0.948)	− 0.069	− 0.065	Reflective	0.054	< 0.001
FM5	0.008	0.431	(0.855)	0.037	− 0.109	Reflective	0.075	< 0.001
FM6	− 0.062	0.481	(0.852)	0.102	− 0.199	Reflective	0.071	< 0.001
FP1	0.174	− 0.314	− 0.145	(0.844)	0.087	Reflective	0.056	< 0.001
FP2	0.275	− 0.337	− 0.126	(0.835)	0.099	Reflective	0.046	< 0.001
FP4	− 0.030	− 0.210	− 0.346	(0.741)	− 0.066	Reflective	0.064	< 0.001
FP5	0.188	− 0.422	− 0.145	(0.733)	0.097	Reflective	0.055	< 0.001
FP6	0.360	− 0.572	− 0.035	(0.734)	0.140	Reflective	0.048	< 0.001
FP7	0.033	0.063	0.282	(0.833)	0.036	Reflective	0.054	< 0.001
FM * WCM	0.000	0.000	0.000	0.000	1.000	Reflective	0.062	< 0.001

Source Processed primary data (2022)

Bold means P -value is statistically insignificant

Table 5.5 Measurement model evaluation test results

	AC	WCM	FM	SP	FM * WCM
Average variances extracted (AVE)	0.530	0.501	0.801	0.550	1.000
Composite reliability coefficients	0.783	0.519	0.960	0.874	1.000
Full collinearity VIF	1.493	1.536	1.670	1.109	1.639

Source Processed primary data (2022)

problem in the model. In addition, the square root value for each construct is greater than the correlation between constructs, so it can depict good discriminant validity (Table 5.6).

Table 5.6 AVE square root test results

	AC	WCM	FM	SP
AC	0.728	0.419	0.409	0.036
WCM	0.419	0.708	0.207	0.233
FM	0.409	0.207	0.895	0.092
SP	0.036	0.233	0.092	0.742

Source Processed primary data (2022)
Bold means *P*–value is statistically insignificant

5.6 Hypothesis Test Results

Table 5.7 presents the test results of the five research hypotheses, as follows:

To determine the type of mediation produced from this research model, the value of VAF (variance accounted for) was calculated by the formula devised by Hair et al. (2017).

$$\text{VAF} = \frac{\text{indirect effect}}{\text{indirect effect} + \text{direct effect}} \times 100\% \tag{5.1}$$

A VAF value above 20% indicates no mediating effect; a VAF value between 20–80% indicates partial mediation; and a VAF value above 80% indicates full mediation. The VAF value obtained is 39.72%, so it can be concluded that there is partial mediation.

The output of the full model of this research can be viewed in Fig. 5.1.

Next, the results of the hypothesis testing from this study are summarized in Table 5.8.

The results of testing hypothesis 1 prove that access to credit has a significant positive effect on business performance (*p* = 0.02). This shows that the availability of access to credit for MSMEs can have implications for improving business performance. The use of loans and the ease of obtaining loans for MSMEs can minimize

Table 5.7 Hypothesis test results in coefficient and *P*–value

	Coefficient	<i>P</i> -value	Conclusion
<i>Direct</i>			
AC → FP	0.299	0.020	AC has a sig + influence toward SP
AC → WCM	0.448	0.001	AC has a sig + influence toward WCM
WCM → FP	0.658	0.000	WCM has a sig + influence toward SP
WCM*FM → FP	0.323	0.014	FM is able to mediate
AC → WCM → FP	0.197	0.031	WCM is able to mediate
VAF value calculation	0.3972	Partial mediation	

Source Processed primary data (2022)

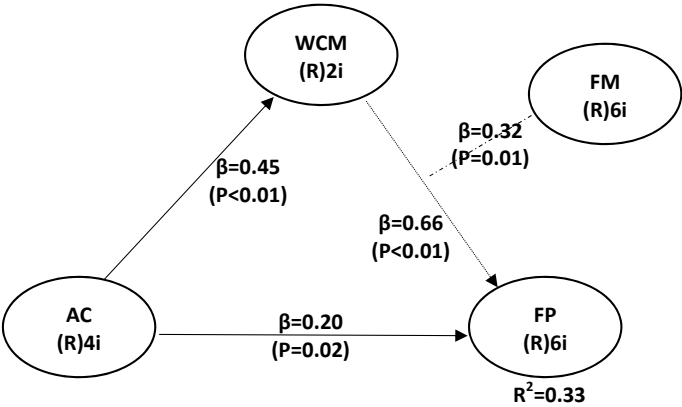


Fig. 5.1 Output of the full model. Source Processed primary data (2022)

Table 5.8 Hypothesis test summary

Path	Test results	Results
AC → FP	0.299**	Significant and positive
AC → WCM	0.448***	Significant and positive
WCM → FP	0.658***	Significant and positive
WCM * FM → FP (FM moderation)	0.323**	There is a moderation effect
CA → WCM → FP (WCM moderation)	0.197**	There is a mediation effect

Source Processed data, 2022
** is for significance level at 95%
*** is for significance level at 99%

MSME barriers to innovation due to a lack of capital. Funds from debt can be used to invest in productive assets that encourage increased turnover and profits to maintain business continuity (Badi & Ishengoma, 2021). The static trade-off theory also explains that if access to credit can provide greater benefits than the costs incurred, then the use of loans and the ease of obtaining loans can have implications for improving business performance (Obuya, 2017). In line with this, previously (Myint, 2020) also demonstrated that access to financing from debt can increase profitability.

In addition to having an impact on business performance, the results of testing hypothesis 2 show that access to credit is also able to affect working capital management ($p < 0.01$). The use of loans and the ease of obtaining loans for MSMEs have significant positive implications for MSME working capital management. This is in line with Fazzari and Petersen (1993), who explained that access to funding can make it easier for businesses to invest in working capital. The availability of credit access to obtain capital allows businesses to invest in raw material inventories which are directly related to the production process, as well as finished goods inventories and

receivables related to sales realization. Another study also illustrated that the availability of access to credit can have positive implications for inventory investment as a part of working capital (Ojonta & Ogbuabor, 2021). The choice of a business to invest in working capital is usually caused by considerations of the smoothness of the production process (Nastiti et al., 2019).

Business considerations are done by firms to ensure that adequate working capital can lead to high investment in working capital. If this decision is taken with the aim that there are no obstacles in the production process and lost opportunities to actualize sales, then in the end, this decision can have implications for improving business performance. This is evidenced by the results of testing hypothesis 3 by showing that working capital management has a significant positive effect on business performance ($p < 0.01$).

Morshed (2020) explained that a conservative working capital investment policy by maintaining a high level of working capital is sometimes needed to reduce the risk of failure in the production process. Increasing working capital investment, such as inventory and receivables, is a characteristic of manufacturing businesses to maintain their production activities (Al-Mawshaki et al., 2019). A sufficient supply of raw materials allows a business to avoid the risk of fluctuations in raw material prices (Fazzari & Petersen, 1993), which increases the production capacity, quality, productivity, and operating efficiency (Ojonta & Ogbuabor, 2021). This is likewise with the consideration of MSMEs to invest in finished goods inventory and receivables that are directly related to sales. Adequacy of finished goods inventory and the choice to provide receivables for consumers can encourage increased sales realization which in turn can increase business profitability.

The significant influence of working capital management on firm performance can be strengthened by the financial management capabilities of business actors. This is evident from testing the moderating effect of hypothesis 4 in this study which showed significant results ($p = 0.01$). With better financial management capabilities, the influence of working capital management on business performance will be stronger. Financial management ability is a skill that must be possessed by MSMEs if they want to develop a business (Jindrichovska, 2013). The ability of MSMEs to record all sales and purchase transactions, group all sales and purchase transactions, compile simple financial reports, read simple financial reports, separate business income from personal money, and divide business expenses from personal expenses can moderate the role of working capital management to achieve business performance. With these capabilities, MSME actors can manage working capital better, so as to improve their business performance.

Finally, the results of hypothesis testing in Table 5.5 are able to attest that working capital management significantly mediates the effect of credit access on business performance. This is reinforced by the results of the VAF (variance accounted for) test as from the approach of Hair et al. (2017) with the formula
$$VAF = \frac{\text{indirect effect}}{\text{indirect effect} + \text{direct effect}} \times 100\%.$$
 A VAF value $< 20\%$ indicates no mediating effect, a VAF value between $20\text{--}80\%$ indicates partial mediation, and a VAF value $> 80\%$ indicates full mediation. The results of the VAF calculation in Table 5.6 reveal

that there is partial mediation because the VAF value in the model has a value of 39.72%, meaning between 20 and 80%.

Thus, it can be confirmed that working capital management is a variable that mediates the effect of credit access on business performance. Laghari and Chengang (2019) explained that the availability of business funds could have implications for working capital investment. Companies that do not experience financial constraints can make higher investments in working capital (Baños-Caballero et al., 2016). On the other hand, the existence of financial constraints will make it difficult for a business to invest in working capital, so that in managing working capital, a firm will tend to invest in smaller amounts. In fact, high investment in working capital allows businesses to increase sales (Deloof, 2003). Adequate working capital ensures that businesses avoid the risk of fluctuations in raw material prices (Fazzari & Petersen, 1993) and increase their production capacity (Ojonta & Ogbuabor, 2021) to reduce the possibility of losing sales due to stock outs (Corsten & Gruen, 2004). High investment in working capital allows companies to increase their sales and income (Aktas et al., 2015), thereby increasing their profitability and having sustainable growth (Nastiti et al., 2019).

5.7 Conclusions, Limitations, and Suggestions for Future Research

The findings of this study support the static trade-off theory. Entrepreneurs wisely consider the cost benefit of debt during the pandemic transition. This is indicated by the moderate level of access to credit. MSME entrepreneurs face a trade-off, whether to play it safe to stay alive during the crisis or to take the risk of debt that can be profitable or detrimental to their business.

However, business pressure due to the pandemic has actually raised the courage of entrepreneurs to take calculative risks by utilizing sources of funds from debt to support innovation activities and superior performance. The existence of fixed financial obligations arising from debt financing actually forces entrepreneurs to manage business finances better and more professionally. According to the cash conversion cycle theory, entrepreneurs will try to shorten their cash cycle, so that cash inflows can continue to spin the daily business wheel, as well as to pay off business debts. Those are the lessons learned that can be concluded in this study.

A limitation of this study is the level of generalizability, because the study was conducted in a cross-sectional manner during the endemic transition period, so the resulting implications may not be relevant to a stable business situation. Therefore, future research can actually follow-up by doing similar research by comparing the existing findings during the period before, during, and after the pandemic in other business sectors.

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Chapter 6

An Exploration of the Service Innovation Gap in Swiss Tourism



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6.1 Introduction

The pressure to innovate in the tourism industry is increasing (Innerhofer et al., 2016; Peters & Vellas, 2019). Increasing global competition, new challenges and opportunities in the field of digitalisation, as well as the dynamic development of society, are challenging the players in the tourism industry (Rachinger et al., 2019). While modern innovation methods are often professionally applied by larger companies, the situation for smaller and medium-sized enterprises is more difficult (Knaus & Merkle, 2020; Merkle et al., 2019). The situation to develop new offers with entrepreneurial action and innovative strength is thus particularly challenging for small and medium-sized enterprises. In this context, the ability to commercially exploit tourism products plays a central role (Anderegg & Merkle, 2020).

According to Bieger et al. (2009), the tourism industry differs in particular from other industries in the tertiary sector in that it is highly fragmented. This results in the necessity of coordinating heterogeneous providers for the delivery of services to guests. The tourism industry is also subjected to network effects, and added value can only be created through positive and strong network connections (Bieger & Laesser, 2004). In the Swiss tourism industry, it is predominantly small and medium-sized enterprises (SMEs) that operate in these networks and often face numerous challenges in terms of the commercial exploitation of products or the implementation of ideas. This limited ability not only to generate new ideas but also to implement them is what we subsequently refer to as the “service innovation gap”. In this context, Swiss SMEs in the tourism industry are faced with the following challenges according to Küng et al. (2013):

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- Lack of access to funding
- Lack of experience in systematic approaches to product development
- Lack of qualification and know-how of the available human resources

6.2 Literature Review

Switzerland is globally recognised as one of the most innovative countries (Schwab, 2019). The main reasons for Switzerland's consistently outstanding performance are the tertiary education system including its permeability, the integration of lifelong learning into professional practice and strong public–private partnerships (*European Commission*, 2019; *Switzerland Innovation*, 2021).

In the service sector, innovations are usually developed through trial and error in practice, but this is associated with risks. Policymakers therefore strive to enable appropriate facilitation and freedom. In the Swiss context, the legislator grants corresponding positive financial incentives for this purpose (Duttweiler et al., 2020).

6.2.1 *Innovation in Tourism*

According to Hall (2009), tourism and innovation policies are often pursued separately and are therefore not coordinated. Tourism is frequently seen as a low-innovation sector, even though the data often show a different situation. Overall, the economic importance of tourism is often qualified as little, and the sector is seen as low income and low value. Special financial programmes explicitly dedicated to innovation have rarely been found in tourism in the past (Hall, 2009).

Since small and medium-sized enterprises (SMEs) are often active in the tourism industry, and cooperation in the destinations is coordinated via destination management organisations (DMOs); some of the synergy gains resulting from cooperation are immediately lost again (Camison & Monfort, 2012). Furthermore, e.g. Sørensen (2007) or Ottenbacher et al. (2006) mentioned lack of knowledge about innovation processes in tourism. As Duttweiler et al. (2020) explain further, the frequency of knowledge transfer in traditional tourism-related service industries such as gastronomy or accommodation in the Swiss context has declined significantly in recent years.

6.2.2 *Innovation in Alpine Regions*

Switzerland's Alpine tourism regions are affected by drastic changes. While urban regions experienced continuous growth in overnight stays and an impressive increase in room capacity prior to the Covid-19 pandemic, overnight stays in alpine regions

have long been in decline (Hörburger & Deuber, 2017; Strauss et al., 2020). This decline is mainly due to the loss of European guests as a result of the appreciation of the Swiss franc. Although more guest arrivals were recorded from distant markets (especially Asia, the USA and the Middle East), these arrivals could not compensate for the losses and are generally concentrated in tourist hotspots. Only since 2017 has there been a slight increase in overnight stays from traditional European markets such as Germany, yet the Swiss Alpine region still lacked 43% of hotel overnight stays from Europe in 2017 compared to 2008 (Switzerland Tourism, 2018). During the Covid-19 pandemic, on the other hand, some classic Alpine destinations faced unexpectedly high domestic demand. It can be observed here that a certain shift in demand took place with the pandemic. Guests booked more spontaneously and increasingly demanded flexible cancellation conditions. In addition, day tourism became more important, and tourist hotspots were avoided (Bandi & Roller, 2020). The search for unspoilt and often peripheral retreats became the focus of guests in order to avoid infectious environments as much as possible (Laesser et al., 2021). As the booking figures show, especially holiday flats, camping sites and farm holidays benefited from these developments. The use of public transport was avoided and individual mobility increased, as in other countries (Wolking, 2021).

In the light of this situation, the need for innovation in Alpine tourism is more urgent than ever before. As Pikkemaat et al. (2018) explain, tourism stakeholders in the Alpine region are well aware of the importance of “soft” innovations. Nevertheless, mainly infrastructural and technical investments are reported when tourism stakeholders are asked about their innovation activities. Since there is also a lack of knowledge on how to develop innovations, the failure rate of service projects is known to be high (Ottenbacher et al., 2006). Especially in Alpine tourism with many SMEs, many companies are still characterised by low professionalism (Pikkemaat, 2008). As Prantl et al. (2009) point out, employees in tourism SMEs often have innovative skills, but are not able to apply them in their daily work.

Against the backdrop of increasing pressure to innovate, we refer to this limited ability not only to generate new ideas but also to implement them as the “service innovation gap”.

6.2.3 The Service Innovation Gap

Tourism-specific challenges and possible approaches to sustainably effective and efficient implementation of innovations have been little researched so far (Pikkemaat et al., 2018). Research to date has focused on the power of innovation itself and on how companies in the tourism context can drive innovation in terms of idea generation. However, little attention has been paid to the concrete implementation of innovation projects in tourism enterprises. Based on the initial situation and the state of the literature, the following goals can be derived for further exploration of the service innovation gap:

- Strengthening innovation in tourism networks
- Identification of success factors in the implementation of innovations in tourism SMEs
- Enabling efficient use of resources in innovation projects in tourism

Based on the above findings and the research objectives derived from them, the following research questions can be derived:

1. How can innovation projects be implemented and scaled efficiently and effectively in small and medium-sized enterprises in the Swiss tourism industry?
2. What are the success factors that can be used profitably in tourism SMEs in the local and national context, the innovative power with regard to the implementation of ideas?
3. Given the scarcity of resources, what are possible tools that can be used in practice alongside daily business to implement ideas?

6.3 Methods

To explore the service innovation gap, a social science action research approach was followed. This is characterised by the pronounced collaboration between practice partners and researchers (Bryman & Bell, 2007; McNiff & Whitehead, 2002). A high value is placed on practical relevance throughout (Bradbury, 2015). The participatory research approach thus makes it possible to link theory with practice and to develop new approaches in the context of local conditions (McNiff & Whitehead, 2002). According to Bradbury (2015), the involvement of those affected by the research is particularly important in order to develop practice-oriented solutions. In a first step, an online survey was carried out amongst Swiss tourism enterprises, with the help of which the perception of those concerned regarding central concepts of innovation as well as the interest in participating in the further research process could be ascertained (Saunders et al., 2009). The development of the success factors and the toolbox based on them was approached with the help of a creativity workshop. National industry players who had distinguished themselves in previous projects were asked to participate.

For the selection of the industry experts, extreme case sampling was used with regard to concrete characteristics. Insights gained in this way can be applied to other cases and thus scaled up (Yin, 2009). For example, the focus was on particularly large and small or particularly innovative and conservative tourism SMEs. Relevant characteristics were extracted in the survey to avoid selection bias (Collier & Mahoney, 1996). The qualitative analysis in combination with the explorative action research approach allows for a smaller sample size (Saunders et al. 2009).

The action research workshop was held online due to the Covid-19 pandemic. Participants were representatives of destination marketing organisations, tourism business consultants and representatives of regional tourism marketing organisations.

6.4 Findings

The online survey was divided into different topic areas to capture central concepts of innovation. As an introduction, participants were asked about the areas of innovation in which they innovate. Based on this, the researchers asked about the reasons for the innovation activities. In connection with the stated reasons for innovation, obstacle reasons were also asked in order to thereby combine the existing findings from the literature with local conditions. In the sense of the action research approach, with which practice-oriented solutions were sought, the respondents were asked about the most promising measures that support the innovation efforts. Finally, the answers were placed in the context of the respective companies and asked about the responsibilities in this area of the company.

Around 31% of the Swiss tourism companies surveyed innovate in the area of products and services, which also accounts for the majority. In connection with products and offers, however, only 14% focus on services and related services. Contrary to the researchers' assumptions, 22% of the participants stated that they focus on process innovation and 14% on business model innovation. Only 10% of respondents focused on stakeholder-oriented innovations, for example in the area of employees or business partners.

In the knowledge of the different areas of innovation, the reasons for innovation provide information about the innovation behaviour of Swiss tourism enterprises. The reasons can be divided into guest-oriented and company-driven reasons. 39% of the reasons mentioned are demand-driven, e.g. triggered by the need to develop differentiating features or to react to rising customer and guest expectations. In 61% of the responses, supply-side triggers for innovation activities can be identified. On the one hand, internal processes and productivity increases and, on the other hand, influences in the area of politics or technology play a role for the company. Surprisingly, the online survey conducted in the second half of 2020 revealed that only 2% of the companies surveyed are innovating to avert crises that threaten their existence. Accordingly, the rampant COVID-19 pandemic is being countered in a future-oriented manner with internal and external innovations.

The basic willingness to innovate, or at least the knowledge of the necessity to innovate, can be clearly ascertained in the online survey. This knowledge raises the question of the obstacles that nevertheless prevent companies from innovating. The obstacles are of a different nature, and a tendency can be discerned in the direction of what are considered to be given framework conditions in connection with the companies. 26% of the survey participants state that the limited time resources that cannot be dispensed with in day-to-day business represent the greatest challenge and thus a reason why innovations are not driven forward. Small company size is the next most important obstacle (14%), followed by insufficient financial resources (11%). A lack of know-how and the associated limited ability to assess the success of innovation is agreed to by 20%. However, there seems to be a certain willingness to take risks, which is manifested in the fact that the factor "risk" is not mentioned as an obstacle.

In view of the desired practice-oriented solution, respondents were asked about supporting measures that the tourism companies consider helpful in order to strengthen the innovative power of the tourism industry in Switzerland. With 39%, a fairly uniform picture emerges regarding the most promising measure; more time resources appear to be the most effective and efficient measure for the respondents. In addition to the additional time resources, the training and further education of employees as well as goal-oriented cooperation are also assessed as effective measures. Only, 10% of the respondents consider only additional financial resources to be promising in supporting innovation projects in the tourism industry.

According to the respondents in the online survey, it is mainly executives who are concerned with the topic of innovation. With 45%, a clear picture emerges that the topic has a high level of attention at CEO level and is hardly delegated. This finding goes some way to explaining the most frequently cited obstacle, “limited time resources”. Only 8% of the participating companies have a dedicated department that has temporal resources available. Furthermore, in those cases, other obstacles have an influence on the innovative strength. Those were not explored further in this explorative research.

The social science action research approach as described above can be characterised by a pronounced cooperation between practice partners and scientists (Bryman & Bell, 2007; McNiff & Whitehead, 2002). The success factors identified were used to develop concrete, practice-oriented solutions together with the practice partners. The literature research, the online survey in the tourism industry as well as a workshop with tourism professionals produced the project idea of the “court jester”. Instead of accompanying a project with external support over the long term, as has been the case in the past, an interdisciplinary accompanying team and a “court jester” are to develop a concrete innovation project in the shortest possible time and through intensive cooperation with the practice partner. In the past, the task of a court jester was not primarily to amuse the court, but to provoke and irritate. The position of a jester outside the otherwise prevailing norms allowed a certain “jester’s freedom”, and the court jester thus became an “institution of permissible criticism”. A court jester is supposed to invite reflection, rethinking and thinking differently. At the same time, the court jester is also a figure of identification and provides proximity and access. The projects developed quickly in this style are to be tested with regard to marketability and supported by a motivated, committed sponsorship. The aim of the initial support is to bring the project to the market in a short time and then to scale it up.

The solution developed consists of providing tourism service providers such as destination management/marketing organisations, gastronomy and hotel businesses, mountain railways or providers of leisure activities with an external team consisting of representatives of the creative sector and tourism experts for specific projects and topics. This unbiased team pursues the goal of advancing existing ideas—supported by a local project sponsorship—to question where indicated, to involve local actors and to develop an initial prototype. Such prototypes should quickly generate feedback from relevant stakeholders, a so-called “Minimum Viable Product” (MVP). With the help of this, a project idea should be made tangible and validated for stakeholders,

instead of merely being sketched out theoretically and conceptually as was previously the case. The aim of this neutral and topic-independent support is to implement an idea in the local context and to sustainably anchor it within the project sponsorship. To this end, not only is the entire process from the critical examination of the project to project planning and the development of an MVP run through together, but the project participants are also provided with the relevant knowledge. This should enable a company to independently project ideas in the future, to quickly test the concept or marketability and to develop a culture of innovation. The aim is to ensure that limited financial and human resources are used optimally in the future and that the greatest possible success is achieved.

6.5 Discussion and Outlook

6.5.1 Discussion

The results of the survey confirm the existing findings on innovation behaviour and the perceived obstacles of tourism stakeholders. Even if, according to the survey, innovation is mainly in the area of products and services; investments in this area are often related to operational infrastructure and technology and can therefore only be described as soft innovation to a limited extent. In addition to the innovation activities in the above-mentioned areas of technology and infrastructure as well as products and services, the tourism companies are mainly dedicated to innovation in the area of process management and business models.

Specific reasons why tourism enterprises innovate are not addressed in the literature mentioned. Therefore, the results from the survey can close this gap, as reasons for the innovation activities were identified. The motives for innovative behaviour or further development in the field of innovation are twofold. Innovative action is taken in order to emphasise one's own differentiating feature and to meet increasing customer and guest expectations. At the supplier level, innovations are made to increase production, to further develop internal processes or due to external environmental influences, politics or the latest technology.

Based on our research, we found that primarily the lack of knowledge about the development of innovation, the low level of professionalism in the tourism industry and the high failure rate of service innovations are obstacles to innovation. These findings are supported by our survey results. What stands above these mentioned obstacles, however, are the time resources, which according to our survey could be identified as a central obstacle. This most frequently cited obstacle also explains the small size of the company as an obstacle to innovation.

Possible solutions for the challenges evaluated in the literature and the survey could also be collected with the help of the survey. For example, the tourism stakeholders would like to see supportive measures in order to have more time resources

available for the training and further education of employees as well as for goal-oriented cooperation. The solution approach of the “court jester” developed in the cooperative approach addresses the problems of the tourism actors precisely in this sense. External experts accompany and guide tourism actors provide knowledge and experience and mediate suitable cooperation partners in the course of the project, with the aim of creating more time resources. In addition, the financial risks are reduced by the first implementation with a minimum viable product, so that the court jester will be available to both micro- and medium-sized enterprises.

6.5.2 Outlook

This study investigated the innovation behaviour of tourism stakeholders in Switzerland and their reasons for not implementing innovation projects. A literature review, a survey of Swiss tourism stakeholders and a service design workshop with representatives of the tourism industry led to the approach of the court jester.

Looking back at the above research questions, it can be stated at the end of the exploration:

1. How can innovation projects be implemented and scaled efficiently and effectively in small and medium-sized enterprises in the Swiss tourism industry?

Efficient and effective implementation of innovation projects in the tourism industry can be achieved by imparting the knowledge needed for this and by related support measures in the field of education and training. In this empowerment of the individual tourism actors, the created solution approach of the court jester comes into play and allows for a quick implementation and empowerment of the participants. In a first step, the court jester and his accompanying team support the tourism actors professionally and methodically in the elaboration of their own project ideas. In this way, the tourism stakeholders learn to plan and implement their own project right away and benefit from the guidance and support of the team around the jester. In the course of the project, the tourism actors learn how to develop, implement and test MVPs on the market, in order to then be able to further develop these prototypes in an iterative process and scale them later.

2. What are the success factors that can be used profitably in tourism SMEs in the local and national context, the innovative power with regard to the implementation of ideas?

In order to strengthen the innovative capacity of individual tourism stakeholders in the local and national context, measures are needed in many respects. The above-mentioned empowerment through learning in practice or completing education and training is an essential component. In addition to the empowerment to tackle and implement innovation projects, the cooperation with the court jester and his accompanying team has a positive impact on the current low professionalism of the tourism sector as well as the implementation success of innovation projects.

3. Given the scarcity of resources in practice, what are possible tools that can be used alongside daily business to implement ideas?

It has been shown that the obstacles to innovation often do not lie in the availability of technical tools (such as project management or collaboration platforms). Rather, knowledge and experience of innovation projects are needed, which can be brought in context specifically. By means of the court jester approach, these can be provided in a targeted and cost-effective manner. Due to the exploration of the service innovation gap, design thinking methodologies such as the rapid development and early testing of prototypes also stand out as successful tools.

This chapter is to be understood as an interim report on the ongoing project on the service innovation gap in Swiss Tourism. In a next step, the concept of the court jester will be tested on several pilot projects in the context of Swiss tourism and subsequently evaluated with tourism stakeholders.

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Chapter 7

Zero-COVID Policy and Entrepreneurship: A Multidimensional Perspective in the Context of China



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7.1 Introduction

The COVID-19 pandemic has been one of the most severe crises of the contemporary era. To contain the spread of the coronavirus and preserve lives, government and local authorities implemented measures such as social isolation, broad lockdown, and limitations on travel and mobility (Liguori & Winkler, 2020). Consequently, these restrictions posed additional obstacles for entrepreneurial activities (Smith et al., 2022). Many firms temporarily shut down because of regulatory limitations, and some even were compelled to operate at a reduced capacity (Breier et al., 2021). Therefore, the measures against COVID-19 significantly influence all kinds of entrepreneurial endeavors. Entrepreneurship is dependent on the surrounding environmental and institutional factors, as they affect enterprise creation, development,

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and growth (Thornton et al., 2011; Urbano et al., 2019). Natural crises such as the COVID health crisis significantly disrupt societies and impact entrepreneurship on multiple levels (Ratten, 2020). Not only has the pandemic created uncertainty for business operations, supply and demand, but the differences in policy response and changing policies have made it even more difficult for sustainable business planning. Understanding the impact that policies dealing with crises have on entrepreneurship is important in coping with future crises situations. The different country responses to the COVID pandemic show that there is not one ideal solution and that it is necessary to understand the implications of policies on multiple levels, both societal and economic (Bai et al., 2022).

Existing studies on COVID and entrepreneurship have looked into the opportunities for enterprises amidst the effects of the rapid spread of the virus, the concepts of organizational pivot, innovativeness, resilience, and opportunity recognition (Ratten, 2021). Others have also considered institutional factors in the context of the pandemic and its implications on entrepreneurial risk (Tavares et al., 2021). However, little information has focused on zero-COVID policy, regarded as one of the extreme policy against COVID. There are two contradictory views on the effects of zero-COVID policy. On the one hand, zero-COVID policy prevents excess mortality and contributes to the societal well-being and health (Su et al., 2022). On the other hand, the economy and business activities have influenced significantly due to its extreme measures in the society (e.g., shutting down the firms and stopping the mobility of people). This phenomenon is particularly prominent in China because China takes one of the strictest COVID-19 policy all over the world. Though China has released its COVID-19 control since December 2020 (Agence France-Presse, 2022a, 2022b, December 26), the influence of this zero-COVID policy does not disappear immediately and remains in the society, especially its effects on entrepreneurship. Hence, it would be necessary to take a multilevel perspective on the zero-COVID policy's effects on entrepreneurship.

To address the above gaps, the objective of this article is to assess the multilevel impact of the zero-COVID policy based on the example of China and its implications for national, international, and migrant entrepreneurship. By looking at the three different aspects of entrepreneurship, we identify the impact of the zero-COVID policy on an economic (national and international level) and societal level (migrant entrepreneurs). The guiding research question is, how does the zero-COVID policy impacts national, international, and migrant entrepreneurship? To answer this question, the next section introduces the concept of the zero-COVID policy and its relation to entrepreneurship. We then assess the impact of zero-COVID on national, international, and migrant entrepreneurship in China and discuss its implications.

7.2 Theoretical Background

7.2.1 Zero-COVID

Zero-COVID is a public health policy consisting of five measures “Find, Test, Trace, Isolate, and Support” (FTTIS) during the COVID-19 pandemic (Llupia et al., 2020). Some countries have implemented this strategy (e.g., Australia, Bhutan, China, New Zealand, North Korea, and Singapore) since the pandemic outbreak in early 2020, suggesting tight control and maximum suppression in contrast to the living with COVID-19 strategy. Moreover, it refers to the use of public health measures such as contact tracing, mass testing, border quarantine, lockdowns, and mitigation software for the sake of stopping community transmission of COVID-19 once it is detected (Li et al., 2020). The goal of this strategy is to get the region back to zero new infections and resume normal economic and social activities. Since the late 2021, due to challenges with the highly increased transmissibility of the delta and omicron variants and also the arrival of COVID-19 vaccines, most countries have stopped pursuing zero-COVID. As of November 2022, China is the only one country still pursuing a zero-COVID strategy although early December 2022 China has relaxed the COVID control (Agence France-Presse, 2022a, 2022b, December 26).

In addition, health experts posit that zero-COVID is an elimination strategy with zero-tolerance of the virus. However, other COVID policies are mitigation strategies that attempt to reduce the negative effects of the virus on society but can still tolerate some degree of transmission within the community rather than shutting down all the business activities (Agence France-Presse, 2022a, 2022b, March 26). Therefore, there are two controversial perspectives on the zero-COVID policy. On the one hand, advocates of zero-COVID have pointed to the far lower death rates and higher economic growth in countries that adopted elimination strategies during the first 12 months (i.e., prior to widespread vaccination and widely spread of omicron) since early 2020 of the pandemic compared with the countries that have pursued mitigation strategies. Hence, supporters of zero-COVID argue that swift, strict measures to eliminate the virus speed up the society returning back to a normal life (source?).

On the other hand, opponents posit that it is not realistic and impossible to eliminate a respiratory virus any more than it is to eliminate the flu or the common cold (Dem, 2022). To achieve zero-COVID in an area with high infection rates, it is estimated that it would take three months of strict lockdown, a shutdown of all business activities, tighten border control, take forced quarantine, and sacrifice the people's freedom. The cost of zero-COVID is significantly higher than that of a mitigation strategy, particularly since the spread of omicron in late 2021 with a lower fatality rate. Consequently, China, as one of the most representative countries pursuing zero-COVID, has suffered a lot since early 2022, such as low economic growth and entrepreneurship rate, a high unemployment rate, and business bankruptcy. Although China has relaxed its COVID control and abandoned zero-COVID policy

to some extent in December 2022, the adverse effects of zero-COVID policy will not disappear immediately and will have a significant impact on all business activities, particularly for entrepreneurship in the country.

7.2.2 COVID-19 and Entrepreneurship

Although COVID-19 started three years ago at the beginning of 2020, a multitude of scholarly research has advanced the understanding of its impact on education, health care, economic development, and social mobility. For example, Tang et al. (2021) have examined the relationship between COVID and entrepreneurial alertness, suggesting entrepreneurs with high level of alertness was less likely to reopen their business after the lockdowns were lifted, but this negative relationship could be attenuated for older and experienced firms. Furthermore, at the interface of entrepreneurship and COVID-19, the majority of academic publications have taken the form of commentaries, conceptual pieces, and editorials (Kuckertz & Brandle, 2022).

Kuckertz and Brandle (2022) conducted a systematic literature review and identified 34 studies published between early 2020 and early 2021, discussing the impact of COVID on entrepreneurial activities. They found that the related studies fall into three general perspectives: uncertainty, resilience, and opportunity. Their perspectives have various focuses. The uncertain stream focused on the health and economic uncertainty generated by the COVID-19 crisis. The resilience stream shed light on resilience as an essential characteristic for entrepreneurs to survive in the unfavorable environment. The opportunity perspective concentrated on the unique entrepreneurial opportunities brought forth by COVID-19. However, uncertainty is seen to be the most influential perspective among these three perspectives during COVID pandemic (Tang et al., 2021; Brown & Rocha, 2020; Sharma et al., 2020).

Past literature has already identified different types of uncertainty based on its source (e.g., environment, industry, and firm characteristics) in the business contexts (Sharma et al., 2020). Obviously, COVID policy, one of the most important contextual factors, causes greater uncertainty for start-ups and SMEs. This uncertainty might come with unexpected forced closure at any time and is exacerbated in the countries with zero-COVID policy. However, since the widespread of highly increased transmissibility of omicron variants in late 2021 and arrival of vaccines, more and more countries partial or fully reopened, the economy after the lockdowns and relaxed the control of COVID spread, the mitigation strategy against COVID-19 dominates around the globe, and consequently, the uncertainty is predicted to reduce. Start-ups and SMEs will face less challenges compared to before. Nevertheless, there is limited information in countries still pursuing zero-COVID, especially in China. The uncertainty with this specific strategy is not mitigated for entrepreneurs but intensified because of unexpected forced quarantine and closure. Therefore, it is critical and timely to understand how entrepreneurship is affected in the countries that still pursue zero-COVID.

7.3 Zero-COVID Policy: A Multidimensional Assessment on Entrepreneurship

7.3.1 *National Entrepreneurship*

Local private Chinese businesses have increased exponentially over the years and now make three times more than state-owned firms in China (Lardy, 2016). However, the advent of the zero-COVID policies of the government created major setbacks for these businesses. The zero-COVID policy, as it has become known, had a major effect on the economy, slowing down the Chinese and global economy tremendously in the name of preventing the spread of the virus.

In 2019, China's economy grew by 5.94%, which translates to an extra \$142.29 billion (Habibi et al., 2022). However, in the first quarter of 2020, when the Coronavirus was declared a global pandemic, the Chinese economy shrunk by 6.8%. This was due to the lockdown and uncertainties which came with it. Things changed quickly, and China adopted new measures from the end of 2020 to 2021 (Normile, 2021). The Chinese economy bounced back strongly in 2021, when the year-on-year GDP grew by 18.3% after some COVID restrictions were eased (Habibi et al., 2022). This is reflected in the performance of private businesses in China, which boomed significantly (Zhang, 2021).

The reintroduction of the zero-COVID rules caused the economy to slow down again, thereby reducing economic growth in ways that affected all businesses and entrepreneurial efforts adversely. Some analysts projected that the zero-COVID measures could cost China's GDP to lose as high as 4% in 2022 (Pitchers, 2022). This is close to the extended lockdown of 2020. Many private Chinese businesses moved into survival mode. The zero-COVID policy came with a high degree of uncertainty which reversed the gains made by China throughout 2021 when the economy started growing again. It created a lot of strife and uncertainty for local entrepreneurs, which led to business disruptions that affected smaller businesses in a greater way than larger ones in China. Local Chinese businesses were impacted adversely in a harsh manner because the economic disruption affected their trade, survival, and growth. All the gains from 2021 were reversed, thereby exposing them to serious losses that caused many local Chinese enterprises to close significant units and lay off workers which also affected aggregate demand adversely. Surviving businesses were collapsing, and new businesses were almost impossible to start, except for a few digital and tech businesses established to directly access opportunities. The zero-COVID policy restricted funding and investments as the government only focused on state-owned enterprises and did little for private businesses.

In terms of operations, many private businesses throughout China had to halt operations due to erratic supply patterns. Zero-COVID came with major uncertainties and disruptions in the country's supply chain (Gong et al., 2022). Thus, raw materials could not move from one point to another point in the country. The likelihood of declaring private businesses goods as "nonessential" was higher because the survival

of the state, and other essential entities were put ahead of private businesses, thereby reducing operations and production in private enterprises throughout China (Li et al., 2022a, 2022b).

Studies have shown that while China's strong state-owned enterprises benefited significantly from stimulus packages and aggressive policies to ensure the survival of the Chinese economy, private businesses got very little support (Li et al., 2022a, 2022b). This is because China used a targeted stimulus system which involved the growth of infrastructural investments. On the other hand, little was done to boost grassroots consumption and small private businesses (Li et al., 2022a, 2022b). This saw China protecting its export-driven economic model at the expense of small businesses and entrepreneurial efforts, which were exposed to a spate of low demand and low performance.

When the zero-COVID policy was introduced in China and it became apparent that most businesses had to close several units to survive, many people were laid off. The probability of a working person becoming unemployed rose to as high as 10% in some parts of the country (Gong, et al., 2022). This is because many private businesses were going through challenges in ensuring revenues and sales during the uncertainties caused by the policies to contain foreign variants from spreading when they were detected after 2021. These high unemployment rates were unheard of in recent memories, and this meant household consumption fell to record lows, thereby affecting aggregate demand, which in turn caused businesses to lose revenues.

The fall in demand in China meant that sales fell for private businesses throughout China. This contributed to the woes of these companies, and they had to settle for more cuts to survive. Small businesses in China had an average lifespan of about three years before the pandemic in 2018. However, in the era of the zero-COVID policy, this was reduced significantly according to the same standards of evaluation as more businesses folded up (Cheng, 2022). The official Purchasing Manager Index showed clearly that small businesses in China had it worse than larger businesses throughout the pandemic, especially during the height of the zero-COVID era. This is mainly attributed to business disruptions which affected smaller businesses more than larger ones.

Ma et al. (2021) used a structural equation model (SEM) to study the impact of China's strict COVID restrictions on small and medium-sized businesses. They found that COVID pushed many of these entrepreneurial ventures into survival mode, and this, in turn, caused weak employment figures and adversely influenced growth (Ma, et al., 2021). One of the key adverse factors was the reduction in consumption due to the limited purchasing power and China's use of a voucher system that did not contribute to profitability among most private ventures. This trend continued throughout the zero-COVID era of 2022 and worsened the plight of private businesses because of the uncertainty that came with it.

Another empirical study identified that external support made a huge difference between survival and failure, as COVID had a significant negative impact on all small businesses ranging from financial performance to operational performance, profitability, access to finance, and customer satisfaction (Xiao & Su, 2022). When zero-COVID commenced, the essential government aid that was essential for the

survival of most small businesses was suspended. This is because there was an air of uncertainty and conflict in all aspects of Chinese society, thereby worsening the plight of these businesses.

7.3.2 *International Entrepreneurship*

China remains an export-driven economy because it does not have an affluent and highly indulgent economy like the United States. On the other hand, China's efficient production systems and high volumes of export after joining the World Trade Organization in 2001 have made many international businesses dependent on China for the production of goods and refined raw materials.

The zero-COVID policy's greatest impact on international businesses was its inconsistency and inflexibility (Liu, 2022). International businesses could not operate fully in China due to the zero-COVID policy. There were restrictions to the travel of executives and the delivery of their activities in China. The zero-COVID policy disrupted supply chains which affected operations and discouraged foreign investments in China, leading to serious opportunity costs. The business became unpredictable for many international companies because they could not be sure of whether essential products from China would ever get to them or not. Some analysts argued that zero-COVID was threatening to cost China its role as the world's greatest supplier of goods and products (Farrer, 2022).

Cross-border trade from China fell to as low as 79% relative to 2019 levels during the zero-COVID era (Wang, 2022). Considering the fact that businesses in charge of exporting and marketing Chinese products abroad are often private businesses and entrepreneurial ventures, they were hit significantly by the embargo on Chinese exports induced by the zero-COVID rules. The obstructions in China's supply chain systems throughout the zero-COVID period treated to cause Chinese businesses to lose confidence internationally (Pitchers, 2022). This is due to the fact that buyers around the world had their expectations of what Chinese suppliers must deliver as per pre-agreed contracts. Hence, the unexpected lockdowns following the detection of the omicron variant led to a lot of disappointment, especially due to the fact that most other economies around the world are recovering from the lockdown of 2020. A lot of these zero-COVID measures were taken in Shanghai, where some 25 million people were locked down, and the fact that most supply routes to the international markets are linked to Shanghai, the zero-COVID measure had a serious adverse effect on the supply of Chinese goods around the world. Thus, private business owners and their international partners had to make do with unstable and unpredictable supply trends.

The lost opportunities come with a loss in foreign investments. That is because an air of uncertainty hangs around China, and many international businesses have adopted a wait-and-see approach. This is an opportunity cost that runs into trillions of dollars and affects China as well as international businesses which would have accessed these opportunities in China if the zero-COVID policy was not in place.

Cuts in local businesses also triggered a mass exodus of foreign talent from subsidiaries of major international companies in China (Wang, 2022). This is because many of them were living an idle life in China at the height of the zero-COVID policy, which confirms the fact that China's international standing and effort were affected significantly by the cuts and restrictions linked to the zero-COVID system.

International entrepreneurship suffered significantly because of visa restrictions and strict quarantine, which came with the zero-COVID Strategy (Trauner, 2022). Many international businesses which had been restructured due to the pandemic in Europe, North America, and around the world could not send executives to China to seek new opportunities in the era of the zero-COVID policy. Due to this, businesses that needed to change their relationship with China and take advantage of the Chinese economic recovery of 2021 had to simply wait, and this lengthened the business cycle and prevented the ability of businesses to reopen fully after the lockdown eased elsewhere around the globe.

7.3.3 *Migrant Entrepreneurship*

The COVID pandemic has hampered entrepreneurship in general, but has hit the migrant entrepreneurs population particularly hard (Yeshe, 2022). The restrictions related to the zero-COVID policy of the Chinese government pose both economic and social challenges to the population, in which migrant entrepreneurs experience additional regulatory and integration challenges that affect their business and social conditions (Prah & Sibiri, 2020). Migrant entrepreneurs face a double disadvantage, as they are not able to fully access home-country nor host-country resources. Migrant entrepreneurs often have less network ties within the host-country society, which especially in times of COVID restrictions has made it difficult to sustain the business due to limited support from locals (Yeshe, 2022). Despite these common challenges, the migrant population is not homogeneous, and migrant entrepreneurs can experience a variety of consequences, which to some extent depend on their origin. The challenges for migrant entrepreneurs amidst the zero-COVID policy can be viewed from two migrant group perspectives: foreign migrants and internal migrants.

Foreign migrant entrepreneurs, who immigrated from outside of China and founded a business, face next to economic downturn visa issues and discriminatory policies targeting, especially the African-migrant population, which grew significantly in the last two decades since the Forum on China–Africa Cooperation launched in 2000. Reports on police brutality and crackdown on their small businesses already existed before the COVID pandemic and have widened since (Prah & Sibiri, 2020). In times of socioeconomic uncertainty, marginalized societal groups experience stronger pushback from society as everyone fights for their benefit and foreign migrants with low societal support and network experience stronger exclusion. Additionally, studies have shown that migrants from Western countries, who usually experienced a privileged status before the pandemic, were forced to leave China when their businesses failed due to COVID restrictions. These so-called *expats*

lost their dream of entrepreneurial success in China and the majority reported not to return to China even when the restrictions will end. This is a loss–loss situation for both sides, as these migrants lost their identity and dream and have to start all over in their country of origin, and China’s economy has lost their entrepreneurial contribution to the country’s economy (Kefala & Lan, 2022).

Internal migrant entrepreneurs are Chinese citizens who move from rural areas to major cities to establish a business. However, the country’s so-called *hukou* system of residential registration determines work, social security, and public health in the city of registration and therefore often denies the right of access to public services and social security in the new place of residency. The *hukou* system had been implemented in the 1950s to restrict migration between urban and rural areas. However, internal migrants in metropolitan cities like Shanghai already accounted for over two-thirds of the working population by 2017 (Blalock & Lyu, 2021). Amidst COVID lockdowns, these migrants were not allowed to return to their hometowns nor take up public health and social services in their current place of residency. This left many entrepreneurs, who had to shut down their business due to economic loss resulting from the COVID restrictions, without resources. Forced to find employment, migrants entered precarious work conditions often as COVID control personnel forcing them even more into marginalization (Feng, 2022; Johnston, 2022).

Nevertheless, next to the negative effects of the zero-COVID policy on migrant entrepreneurs, there are positive consequences as well. During the Shanghai lockdown, a change in the digital administration system was announced enabling all personal and business registration procedures and access to social security to be done online. This will allow Chinese migrant entrepreneurs to register changes without the need to travel to their hometowns. The zero-COVID policy thus may lead to positive unintended consequences that lead to more rights and equality for migrants (Johnston, 2022).

7.4 Discussion

We started with the key concepts of this chapter, zero-COVID policy and its impact on different facets of entrepreneurship in China. We reviewed the literature to explore the impact of zero-COVID policy on different types of entrepreneurship such as migrant entrepreneurship, national entrepreneurship, and international entrepreneurship. The review conveys that the zero-COVID policy has remarkable impacts on entrepreneurship in China.

Firstly, the review of the zero-COVID policies and national entrepreneurship showed that over the past forty years, China’s market has improved tremendously (Umar et al., 2021), but recently the zero-COVID policy not only disrupts entrepreneurial activity but also the value chain and the welfare of the household (Ma et al., 2021). As a result, a few months after the outbreak of COVID-19, 10 million small and medium size SMEs were shut down in China (Ma et al., 2021).

The consequence of zero-COVID policies has had a great impact on China's national-level entrepreneurship and has brought severe challenges for domestic firms. Studies show that more than half of the domestic SMEs had to reduce their operating income, faced troubles repaying debt, ran out of funds, etc. As a result, the country's GDP growth rate went down to the lowest in the last two decades, and the unemployment rate increased significantly (Xiaodong & Pingxiu, 2020). In China, as part of the zero-COVID policy, the government shutting down small company operations to limit the spread of the COVID was a key reason for the demise of many small and medium-sized businesses. In China, women owned businesses are around 1%, and many of them are not registered and not digitalized (Nguyen et al., 2019). These SMEs including footwear, ready-made clothing, and healthcare production were not operating due to the zero-COVID policy. In the middle of the COVID-19 crisis, entrepreneurs wanted assistance in strengthening their ability to adapt to digitalization. Being unregistered and lack of government funding didn't have the access to government help, which made it difficult to sustain in the market. Furthermore, research indicates SMEs' lack of capabilities to deal with reactive planning and capacity development trends, which resulted in considerable challenges to SMEs during the pandemic (Ma et al., 2021).

Secondly, international entrepreneurial activity has become a crucial contributor to the economic development in the last few decades in China (Sun et al., 2021). According to the World Bank (2019), the contribution of exports to the total GDP of China was around 36%. However, COVID affected the trend of world trade and operation of international companies. The literature revealed that due to COVID-19, there has been a considerable reduction in international entrepreneurial activities among various countries (Vidya & Prabheesh, 2020). Moreover, in China, the zero-COVID policies have altered the trade network. Due to the implementation of the strict lockdown, the industrial sector fully came to an abrupt halt in these economies. As the industrial sector is linked to the international trade network, the zero-COVID policies thus affect supply chain disturbance as well (Zhang et al., 2021). As a result, global companies like Volkswagen announced plans to reduce China-based-expect employees over the next few years. Other companies like Apple are cutting down their investment in China due to the shutdowns, travel restrictions, and supply chain distribution (Wang, 2022).

Finally, regarding zero-COVID policy and migrant entrepreneurship, national economies, and global economies have experienced a sharp downturn due to the lockdown measures, travel restrictions, and social distancing, which cause a reduction in consumption, trade, production, and business operations (Fernandes, 2020). Due to the strict travel restriction in China, migrant entrepreneurship struggled from disrupted cross-border ties. The government provides assistance to local businesses, but migrant entrepreneurs did not have access to government assistance (Xinhua, 2020). Migrant entrepreneurship has a notable contribution to the country's economy. However, migrant entrepreneurs faced a lack of external support compared to domestic businesses, and they are more vulnerable to crises like COVID (Bewaji et al., 2015). Generally, migrant entrepreneurs in China deal with restrictive business environments and face the challenge of being integrated into Chinese society. In

addition, the impact of the zero-COVID policy migrant-owned businesses struggle to be resilient (Prah & Sibiri, 2020). Literature shows that discriminatory Chinese governmental policies targeting immigrant-owned businesses during the COVID-19 are a disadvantage of being a migrant entrepreneur in China. As a result, migrant entrepreneurs had to strive harder than non-migrant entrepreneurs did (Prah & Sibiri, 2020).

Overall, it is obvious that COVID-19 has a substantial effect on all types of entrepreneurial activity. As the impact of COVID-19 on business was difficult to predict, it negatively affected the development of businesses and will have lasting implications. In China, the zero-COVID policy impact will be long-lasting, especially for some businesses, as many are said not to recover from the adverse effects (Giotopoulos et al., 2017). To support business recovery, several steps could be taken. This may include venture projects, simplification of starting a new business, funding start-ups, tax reduction, essential logistics, or speeding up loan approval. Considering the role of entrepreneurship in ensuring economic growth and societal well-being, the government should provide equal opportunities and aid to both local and migrant entrepreneurs.

7.5 Conclusion

We set out to assess the impact of the zero-COVID policy on national, international, and migrant entrepreneurship based on the example of China. Zero-COVID led to significantly reduced economic activity, GDP loss, loss of international partnerships, supply chain inconsistencies, a decrease in social satisfaction, and increased inequality. The Chinese COVID policy not only had negative implications. The change in the digital administration system that enabled online access to social security and business registration is one example of a positive outcome of the strict COVID measures. Not only China, but also a majority of other countries globally benefited from improved digital systems and services, which would not have been developed in such a rapid manner as it was the case due to the urgency that the pandemic created. However, our assessment showed that the zero-COVID restrictions had more negative than positive implications for the economic and social well-being. Entrepreneurship suffered severe losses, and it is yet to see when national and international businesses and business relations will recover. The Chinese economy lost the global community's trust and will have to cope with multiple pressures to restore trust and relationships after the restrictions are released.

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