Chapter

The Innovative Business Model for Family-Owned Firms in the Era of Digital Entrepreneurship: Evidence from Emerging Economy

Rizwan Ullah Khan, Munir A. Abbasi, Azlan Amran and Arshad Fawad

Abstract

The current Covid-19 pandemic has been changed the businesses plans. High uncertainty can compel the organization to change the business plan according to the market demand. In the current era of digitalization, organizations are needed to modify the existing business plan and innovate it through technologies. Modifying existing resources according to the market demand is challenging for the organization; employers face many challenges and obstacles. Businesses plan to develop a long-term business model to validate the attractiveness, reduce the avoidable investment of scarce resources, and structure the business process. In the current era of digitalization, businesses, specifically, SMEs cannot compete with the competitors who can adopt digitalization systems. Therefore, the current chapter is trying to find out the challenges faced by SMEs in developing economies during the adoption of the digital business model. In the current chapter, researchers focus on three different kinds of digital technologies that must be part of the business model during the era of digitalization, such as adopting digital technologies (artificial intelligence, Internet of Thing, and virtual reality and to create a new business model following the current era issue, these are the main block to resist of these market uncertainties in a new venture of family firms.

Keywords: digitalization, entrepreneurship, business model innovation, artificial intelligence (AI), internet of things (IoT), virtual reality (VR), Pakistan

1. Introduction

This chapter investigates family firm entrepreneurial strategies' impact on innovation ability during new venture step and reveals how family firms take an initial step for the outcome. Basically, family firms are often assumed to be conservative in their innovation strategy. However, the truth is that many family-owned businesses are among the most innovative in their industries. Moreover, many of them can thrive across generations, which indicates that the spirit of innovation is at the very heart of their company culture.

In addition, to adjust according to market demand and uncertainty, top management or founder must modify the in-hand resources according to the market demand.

Nowadays, the era of digital entrepreneurship, such as new technology, machine learning, and artificial intelligence (AI) due to the COVID-19 pandemic, has changed how companies of all sectors and regions do business [1]. Due to digital entrepreneurship has transformed 50% of daily business activities from physical to virtual form [2], as a result, many firms have banked corruption, which negatively impacts unemployment and economic growth. In addition, Nicola et al. [3] suggested that more than 30% of small firms have been stopped their activities in developed, while 60% in developing economies [4]. Therefore, to stay competitive advantage during this pandemic, this business and economic development must adopt new strategies and practices [5]. Therefore, the firm's policymakers started to modify the current business model as per the digital entrepreneurial era; the firm's business model can be understood as a core of a firm to create and deliver values for its customers and to capture value for itself [6]. A business model is a holistic perception and planning of the firm on the overall tenure and process. There are two models, the cost model and the revenue model. Consequently, COVID-19 pandemic shifts the whole business activities through online sources, because entrepreneurial digitalization has negatively affected small- and medium-sized enterprises (SMEs) [7], because small ventures or founder stage SMEs deploy lack of resources and capabilities [8, 9].

Additionally, small- and medium-sized enterprises are an essential factor for economic growth and the primary source of employment creation. In the globe, more than 80% are SMEs, contributing to 55% in developed economies and 35% in developing economies, with a 65 to 80% employment ratio [10]. In small enterprises, 95% of enterprises are owned and controlled by family members [11]. As stated, family firms are the most dominant form of business organization globally, and the impact of these firms on economies worldwide is notable [12]. For example, in Germany, more than 90% of all companies are family-controlled, and nearly 90% are family-managed. The latter generate 48% of overall turnover and employ nearly 60% of all insurance-liable employees, a number that continued to grow as the number of jobs expanded by more than 11% from 2006 to 2012 [13].

Therefore, this chapter tries to shed light on the family firm's ability to modify the previous business model according to digital entrepreneurship. This chapter specifically highlighted the family firms because family firms have idiosyncrasies and non-economic characteristics [14], differentiating them from non-family firms. In the founder stage, family firms are more risk-averse and concentrate on sustaining long-term ownership [15]. Therefore, family firms face a considerable challenge during the digital globalization era to adopt a business model and answer customer demands.

1.1 Definition of family firms

Defining family firms have become a considerable contradiction among the researchers because defining family firms vary from industry to industry and country to country. There is no specific definition to explain the features and characteristics of family firms.

Nowadays, academicians and practitioners focus entirely on family firms because family firms have different strategic decisions and features compared to non-family firms. In addition, the family firm's final objective is different from the non-family firms (e.g., risk-aversion, non-financial, lack of confidence, etc.). Furthermore, family firms offer idiosyncratic characteristics (e.g., family ownership, family member involvement in decision-making) and motivation (a transgenerational success that substantially affects the firm's strategic behaviors) [16]. In addition, to define family firms, this question does not necessarily have an immediate and defensive answer. Instead, there are many ways to define family firms; the main differentiated factor of family firms from non-family firms can divide through three methodologies: 1) firm ownership, 2) firm governance, and 3) a combination of firm ownership and governance. Nevertheless, the most common approach of defining family firms is the largest ownership share and governance.

As abovementioned, family firms can be differentiated based on two main idiosyncratic characteristics (e.g., ownership and family members in top management) from non-family firms, these two characteristics can vary on from each sector to sector and country to country, see to **Table 1**, and each country has been defining family firms based on their proportion between ownership and family members in top management. Furthermore, Stanley et al. [23] suggested that in developed economies, the involvement of family members in top management is preferred as compared to ownership, because Clinton et al.'s [24] finding reveals that family firms can sustain their generational transformation up to fourth and fifth generation very smoothly; in addition, they have a very strong family business background and risk-averse as compared to emerging economies [25].

Accordingly, this chapter will be following the combination of a family member's share in ownership and involvement in top management as to the previous studies, because it will be conducted in Pakistan. In the Pakistani context, family firms will be defined as those SMEs that have less than 250 employees [26–28] and also have more than 50% family-owned and controlled by family members (at least in the second generation) and in which the business family is involved in top management [29, 30].

Country	Criteria	Definition	Author(s)
Portugal	Ownership, family involvement, succession	In Portugal a firm is called family-owned when the family members are involved in the ownership and take part in the decision making.	[17]
United States	Ownership, family involvement, management	Family firms are those where at least two family members employed in the firms	[18]
United Kingdom	Culture	The family firm is defined in the UK, which are following the culture transcends and is completed, and it is the combination of family-owned attributes and firms itself.	[19]
China	Family involvement, management	At least one family member on the management team.	National Bureau of Statistics of China (2009) (http://www.stats.gov.cn/english/)
Italy	Family involvement, management	where a family owns at least 50% of the shares and at least one family member is involved in management.	[20]
Malaysia	Ownership and management	51% or more of the firm's owners had to be in the hands of a family member and family members	[21]
India	Controlling system and management	"any form of business association where the voting control is in the hands of a given family"	[22]

Source: Author self-created.

Table 1.
Definition of family-owned SMEs in different context.

2. Digital technologies supporting business models

Digital technologies such as AI, VR, and IoT are affecting people living style and working environment, and generating new thoughts for solving of the problem or surviving their lives, and increase the fascination of individuals, the public, and societies [31]. In the era of digitalization, digital technologies are very supportive in case of reducing cost iteration and experimentation of new ideas creates the possibilities of adopting new ideas and concepts [32].

2.1 Artificial intelligence

Artificial intelligence is one more fascinating technology in the era of digitalization. For a definition, we support Copeland [33], to define artificial intelligence as "the ability of the digital computer to perform task commonly associated intelligent beings." Moreover, Copeland expands the approach of artificial intelligence by the components that make up intelligence, such as problem solving, language, perception, learning, and reasoning. Additionally, AI helps the businesses to adopt such new technologies because it supports in case of understanding customer demands. Therefore, in the current era, the adoption of AI is very important and the modification of existing business plans with new long-term objectives.

2.2 Virtual reality

Construct such as virtual reality (VR) and artificial intelligence mostly similar and interchangeable, which makes a barrier between mangers, and entrepreneurs to explore their potential and effectiveness. VR represents the digitalization of the actual things in the digital contents and information, VR is basically the replacement of the actual things to the virtual. The best example of the VR is three-dimensional (3D) digital environment created by computers. Hence, in the era of digitalization, the organization can modify their business plan toward digital entrepreneurship that innovates something digitally which is different from the competitor [34].

2.3 Internet of things

Internet of things is the best source of opportunity recognition, due to digitalization, and organizations is needed to innovate new things to fulfill the customer's needs. In that era, if an organization adopted the IoT, it can easily innovate the new products and services through low cost and less time wasting [35]. Hence, it is the best technology, if any organization has the ability to adapt in an uncertain situation, can easily compete in the market.

3. Initiative steps of family-owned entrepreneurs toward digitalization

As abovementioned that family firms are the dominant platform of a business in the globe, additionally, Randolph et al. [36] suggested that family firms are the main contributor to economic growth and employment creation. Furthermore, Stanley et al. [23] scrutinized that family firms are more initiative and accept the new challenge as compared to non-family firms. Instead of the significant contribution of family firms toward economic growth and employment creation, in the current era of digitalization due to the COVID-19 pandemic, the family firms are facing a lot of challenges and barriers to sustaining their position in the market. The reasons behind the high failure rate of family firms are family firms having family members in their top management and in strategic decision making, those having a lack of resources and capabilities to defend the external market fluctuation [8]. Consequently, the family members are needed to adopt the digital entrepreneurial capabilities and for replace and be aided by technology-driven innovation, such as artificial intelligence (AI), internet of things (IoT), and virtual reality (VR). Digitalization refers to the digital conversation of information and knowledge, and it also concerned with a comprehensive implication of such processes and their effect on the socioeconomic system [37].

Additionally, top management of family firms is needed to adopt or replace the existing resources and capabilities according to the external market of digitalization, because resources and capabilities will support the mechanisms through which family firm's top management influences digital entrepreneurship or (business model innovation) [38], and the previous studies postulate that to sustain family firms in the era of digitalization might require an adapted set of resources and capabilities [39, 40], existing resources such as sales, marketing, human resources, operation, finance, research and development, and customer need to transform into digital environment [41]. Moreover, the external market fluctuation can compel the top management to modify the existing business model and adopt new digital technologies according to the market demand. First and almost, the firm needed to modify the ongoing strategies according to the era, because management transformation is the first step to create an innovative idea and design thinking [42].

Furthermore, family business strategic thinking is different from the non-family firms, because family firms during the founder stage are planning to sustain the firm survival and family ownership for long term [43]. Hence, the policymakers are needed to modify the in-hand resources according to the current era of digital entrepreneurship. In addition, digital transformation motivates the top management regarding innovation and creative design planning [44]. Therefore, this chapter trying to discriminate the initiative steps of family firms toward the digital entrepreneurship. Henceforward, we have created a Mosley's hierarchy model of business for family firms in the era of digital entrepreneurial (see **Figure 1**). The figure represents that first and almost, top management is needed to think about that how to modify the existing resources and capabilities. Next, to modify or replace the existing resources and capabilities can encourage toward new ideas through innovative way and following the current demand of the market. Third, combining the creative ideas and core resources and capabilities is trying to construct or operate the product/services. Last step, top management can utilize the digital resources and capabilities according to the new initiative way. So, these four steps are repeated for developing the new product that is called business model innovation (BMI) *according to the era of digitalization (see* **Figure 2** *for more details).*

4. Family firm cycle of digital business model innovation

The current era of digitalization has affected of all kinds of firms and industries [46, 47], it is defined as that techniques, process, tools, and methods depend on a series of binary digits [48] such as cloud computing and data analysis [49]. Moreover, previous studies postulate that the adoption of digital technologies is the

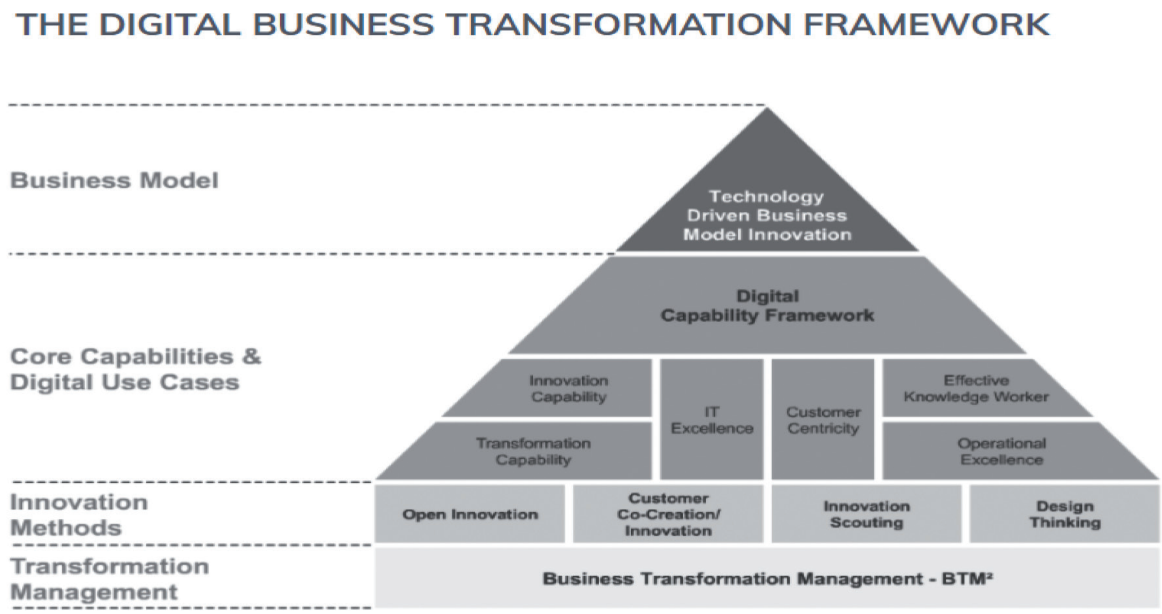

Figure 1.
Business model in case of Mosley Hierarchy.

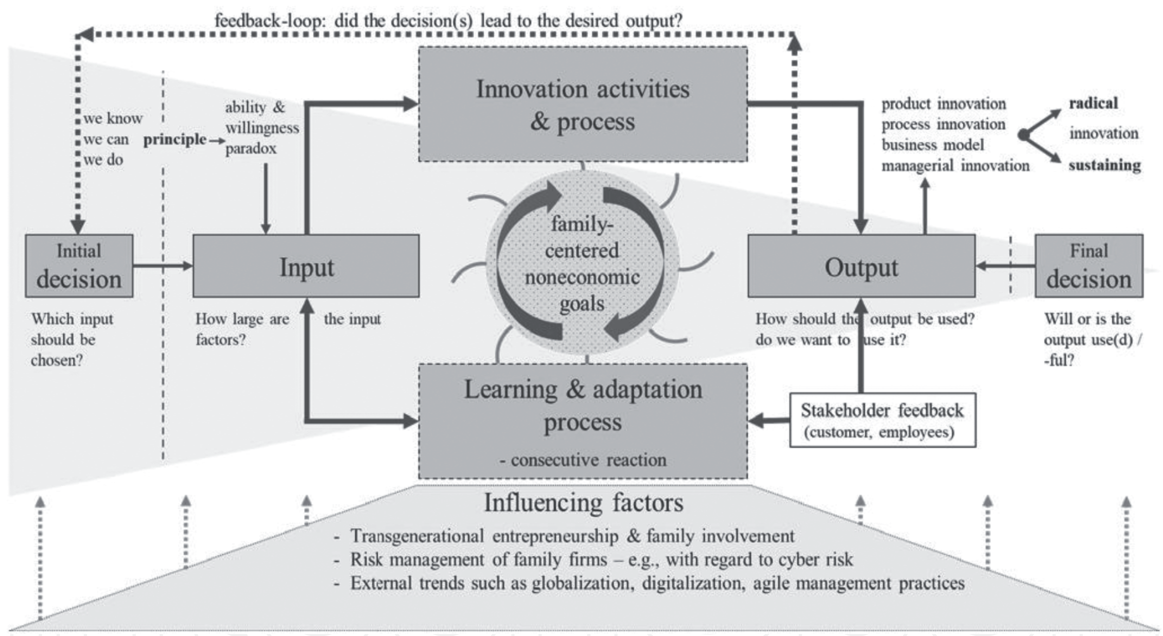

Figure 2.
Feninger et al.'s [45] family firms' innovation as a circular process.

main contributor for a long-term survival of a firm [50, 51] and also plays a pivotal role to sustain the competitive advantage [52, 53]. Additionally, top management of family firms is needed to enhance the entrepreneurial ability of digital technologies and commercialize them, and to do that, the firm requires a proper business model [54].

More precisely, to survive with the external market fluctuation tempted by digital technologies, firms are needed to follow the digital business innovation [40, 55], which is in accordance with Fichman et al. [56], explaining that for a significant and creative way of capturing business values that is embodied in or enabling digital technologies the main contributor of the generated business value.

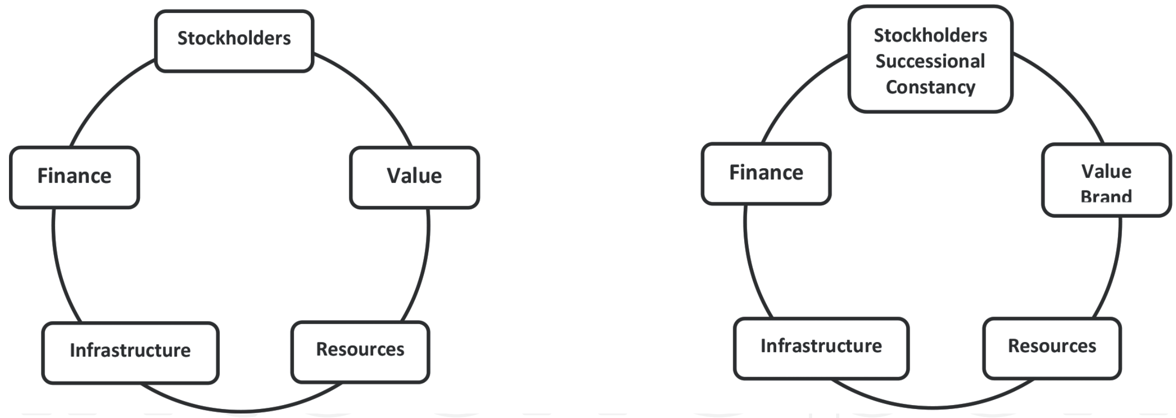

Table 2.
Family firms are planning different business model.

Additionally, family firms are planning different business models as compared to non-family firms (see to **Table 2** for more details), during the start-up have different final objectives, and during the founder stage, family firms are mostly focused on the family members' control and survival for long term. Furthermore, the family firm's top management is very high risk averse as compared to the second and third generations because in the start-up founder invest their saving and all bank balance to start a business. Consequently, during the founder stage, top management cannot bold decision for any investment [57]. Besides all these idiosyncrasies characteristics could be replace or modify due to external market uncertainty.

As abovementioned, the family firm's top management can gain confidence from generation to generation, as we discussed before family firms is taking more confidential decisions as compared to the founder stage [58].

5. Conclusion

This chapter tried to explore the digital technologies (internet of things, artificial intelligence, and virtual reality), impact of family-owned firms, business model innovation in the era of digitalization. Hence, due to the current COVID-19 pandemic, each organization is shifting from reality toward the virtual. Therefore, the top management realizes adopting a digital business model to fulfill the customer requirement and sustain competitive advantage. The researcher focuses on the three leading digital technologies and chooses these technologies based on interviews. Before starting the study, the researcher interviewed the top management of the manufacturing firms of Pakistan. In an interview, the researcher asked the top management regarding the main issue or challenges about technologies, so more than 80 percent of employers tick these technologies and show remarks that in the era of digitalization; these three technologies are the core solution fulfilling the customer's: needs.

Hence, this study's finding reveals that employers and entrepreneurs are suggested to focus on these digital technologies and modify the existing business plan according to the market demands. So, these technologies can help the business innovate new things at low cost, get information, and design different products through virtual reality technology; these are the best source of competitive advantage in the era of digitalization. Additionally, government agencies and institutions are needed to support the business in adopting new technologies that create such an environment facility through information and awareness.

Family firms are chosen because they are the more dominant form of business globally [59]; family firms are the main contributor toward economic growth and employment creation. There are more than 90% of firms are owned and controlled by family members. Despite their significant contribution to the economy and employment, family firms are very risk-averse compared to non-family firms, and their existence is fundamental.

Nevertheless, due to the current era of digital globalization due to COVID-19, family-owned small- and medium-sized enterprises face many challenges to sustain for the long term in the uncertain market. Therefore, strategic policymakers are needed to replace or modify the current business model through adopting digital technologies. Because without adoption of digital entrepreneurial activities cannot sustain for long term. Therefore, this study gives several suggestions to the policymakers and governmental institutions to replace and modify the existing resources and capabilities through digital technologies.

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