

BUSINESS CONTINUITY CAPABILITIES AND BUSINESS MODEL INNOVATION BY SMEs IN A TURBULENT EXTERNAL ENVIRONMENT: TOWARDS AN INTEGRATIVE CONCEPTUAL MODEL

Abstract (175 words)

Due to an increasingly turbulent global business environment as the whole world grapples with Covid-19 and its devastating social and economic impacts, small and medium enterprises (SMEs) are finding it particularly difficult to maintain and develop their capabilities to allow for business continuation and improved performance. However, it is still not clear how SMEs can leverage their capabilities for speedy business recovery and growth in such a volatile and uncertain environment. This study addresses this research gap by developing an integrative conceptual model to explore the impact of absorptive capacity and capabilities for business continuity (e.g. coping, flexibility and resilience) on SMEs' performance and the mediating role of business model innovation in this process. We have also collected qualitative data using in-depth interviews with SME owners and managers from the creative industry in Indonesia as they are one of the fastest growing segments in the SME businesses. Our initial analysis of this data shows that the Covid-19 created various barriers to SMEs which disrupted their business model. The initial results also show that SMEs demonstrated various business continuity capabilities, such as coping, flexibility, and resilience, which are crucial in overcoming barriers and creating opportunities.

Key Contributions (300 words)

This paper will make a significant contribution to advancing knowledge on how SMEs anticipate and respond to environmental turbulence by innovating their business models. Specifically, this study will contribute to the literature on organisational capabilities, business model innovation and SME performance in a turbulent external environment. From a practical perspective, this study will help SME owners and managers develop the capabilities needed to innovate their business models to ensure continuity of their businesses and improve their performance in a turbulent external environment. This study will also contribute to dynamic capabilities (DC) literature on the resilience of organisation and business model innovation in the SME context from a theoretical perspective. The research model developed in this study can be used to empirically test the propositions and analyse the relationships between the variables in this study. By exploring the role of absorptive capacity in developing capabilities for business continuation (coping capacity, flexibility and resilience), this study will provide insight into the capabilities required to respond to and deal with turbulent environments. Further, the study will develop an understanding of how SMEs use these sets of capabilities to maintain performance in turbulent environments by making changes to their business model. Thus, to meet the research objectives, this study will employ a quantitative research methodology and use a well-established construct to test the research model in Indonesia's SME context. From a practical or managerial perspective, the study will provide further insights into how SMEs aim to improve their performance and maintain business continuity under extreme conditions. In particular, the study will add to understanding of the capabilities required to be developed to improve performance in turbulent environments. Finally, the study will provide a greater understanding of the relative role of business model innovation to improve performance in an increasingly dynamic and volatile business landscape.

Introduction

To survive and be successful in increasingly volatile environments, organisations need to understand and handle unexpected crises such as the ongoing Covid-19 pandemic, which has decimated the global economy (Sharma et al., 2020). As shown in various reports, the Covid-19 pandemic is causing shortages, dysfunction, temporary closure and bankruptcy for many companies globally (Barua, 2020) and threatened small businesses in particular (Helgeson et al., 2020). Most studies highlights the importance of SMEs in possessing dynamic capability for implementing innovation practice (Grimaldi et al., 2013) and achieving sustainable performance (Eikelenboom & de Jong, 2019) in a relatively stable environment. In a post-disaster environment context, SMEs need to leverage their dynamic capabilities to recover and grow (Battisti and Deakins, 2015). However, to improve performance under extreme turbulent environments, firms also need to develop and maintain business continuity capabilities such as coping mechanisms, flexibility and resilience (Karman, 2020).

In this context, coping, flexibility and resilience represent three important dynamic capabilities (DCs) of a firm that are distinct but interdependent (Karman, 2020) although these are often used interchangeably (Duchek, 2020). Coping refers to a firm's ability to respond rapidly to change by acting effectively to survive and prosper in an uncertain business environment (Hertin et al., 2003; Karman, 2020). Flexibility is often associated with a firm's robustness and agility (Zhang et al., 2003) and defines the ability to adapt or change activities and strategies to better suit the demands of the environment (Escrig-Tena et al., 2011; Upton, 1995). Resilience is the capacity to absorb effectively, respond to and potentially capitalise on disruptive events (BSI, 2014; Karman, 2020). Together, these capabilities can be managed and developed for firms to successfully perform and maintain business continuity in a turbulent environment. However, understanding of what determines an SME's ability to cope with uncertainty, have the flexibility to adapt to change and become a resilient organisation in turbulent times remains limited. This is the first research gap addressed in this paper.

With the external environment becoming increasingly turbulent, developing and maintaining absorptive capacity is critical for firm survival and competitiveness. Absorptive capacity is a firm's ability to recognise, assimilate and exploit knowledge for commercialisation (Cohen & Levinthal, 1990). Firms depend on resources beyond their boundaries to withstand, adapt and achieve resilience (Golgeci & Kuivalainen, 2018), and to deliver superior value to customers (Saenz et al., 2014). This requires absorptive capacity by which a firm acquires, assimilates, transforms and exploits information embedded outside its organisational boundaries to produce a DC (Zahra & George, 2002). Studies have shown that absorptive capacity influences supply chain resilience (Golgeci & Kuivalainen, 2018) and community resilience (Cutter et al., 2008). This indicates that absorptive capacity may facilitate the ability of SMEs to absorb impacts, cope with an event, adapt processes to reorganise, change and learn to respond to threats. However, the impact of absorptive capacity on SME capabilities such as coping, flexibility and resilience is not quite clear. This is the second research gap studied in this paper.

Finally, the role of business model innovation as an organisation's mechanism for responding to a dynamic and volatile environment has been discussed extensively by various scholars (Chesbrough, 2010; Hamel & Valikangas, 2003; Schneider & Spieth, 2013; Wirtz et al., 2007; Zott & Amit, 2010). While organisations need to adapt to new conditions arising from environmental change, managers may also need to adjust their operations and strategies to overcome these challenges. From this perspective, business model innovation serves as an organisational level of adjustment in overcoming turbulence. However, few studies have linked

firm capabilities such as resilience with business model innovation, and most have been conceptual (Buliga et al., 2016). Studies also show that SMEs with superior DCs create more business model innovation activities (Weimann et al., 2019), yet the impact of the SME capabilities of coping, flexibility and resilience on the readjustment of a firm's business model to deal with environmental turbulence is unclear. This is the third gap addressed in this paper.

This paper addresses each of the above research gaps by exploring the absorptive capacity and capabilities of business continuity (such as coping, flexibility and resilience) and examine their relationships with business model innovation and performance of SMEs in a turbulent external environment. The study specifically focuses on SMEs in the creative industry sector in Indonesia, an emerging market economy. SMEs are the backbone of the Indonesian economy and account for almost 99% of the total number of firms operating in the country (OECD, 2021). According to a recent report by the Asian Development Bank (2018), Indonesia's MSMEs and SMEs also contribute over 60% of the national GDP and account for 89% of total private sector employment. Creative industry SMEs rely on innovation and resilience to compete and is strongly linked with ways of absorbing changes in the market and adopting innovation, to benefit from its implementation, thus providing a suitable setting for this paper.

Literature Review

Absorptive Capacity

The term absorptive capacity was introduced to label a firm's capabilities to innovate and, thus, to be dynamic (Cohen & Levinthal, 1989, 1990). Absorptive capacity consists of recognising the value of new knowledge, assimilating it and applying it for commercialisation ends. The term 'new knowledge' refers to knowledge new to the firm; not necessarily new to the world. Knowledge can be gained from within the industry in which the firm resides, from competitors or even from other industries (Ghauri & Park, 2012; Golgeci & Kuivalainen, 2018; Murray & Chao, 2005). According to Zahra and George (2002), absorptive capacity refers to how companies obtain, assimilate, transform and apply information from outside the organisation to generate dynamic organisational capacity. Firms with a low level of absorptive capacity are less likely to have the ability to realise the value of this new knowledge and assimilate it to benefit the firm in the future (Szulanski, 1996). Absorptive capacity from a boundary-spanning perspective involves a set of routines for creating and managing external knowledge and continuous learning processes (Liu et al., 2013). Absorptive capacity is a boundary-spanning capability for accessing, processing and applying information embedded in a company's relationships as relevant knowledge. Therefore, absorptive capacity to access and process new external knowledge is essential for firms in turbulent environments (Yaquun et al., 2015).

Coping, Flexibility and Resilience as Business Continuity Capabilities

As firms desperate to improve performance under extreme turbulence, this research considers that coping, flexibility and resilience play a vital role in business continuity. Although the term coping capacity is often used interchangeably with adaptive capacity, these are different concepts (Gallopini, 2006). Coping capacity is a short-term way of surviving when dealing with extreme events (Davies, 1993). In contrast, adaptive capacity is more of a long-term approach that requires learning, planning and strategy (Vogel & O'Brien, 2004). Organisations cope with turbulence in numerous ways. The approach taken by a particular organisation is referred to as its coping strategy. Recently, Liu et al. (2016) studied firms' coping strategies in addressing environmental issues in dynamic and highly regulated conditions that enable them to meet

stakeholders' specific demands, classified into four main dimensions: formalism, accommodation, referencing and self-determination, to show that organisations adjust their coping strategies by considering various constraints from their environment.

Flexibility generally involves adapting to change (Holweg, 2005). A firm's ability to respond to problems quickly by adjusting its activities and strategies to meet changing environmental demands relies on flexibility. According to Shimizu and Hitt (2004), strategic flexibility refers to a firm's ability to identify significant changes and respond quickly by allocating resources or putting a halt on a resource commitment as needed. Strategic flexibility enables firms to react to changing dynamic conditions, which supports the advancement or preservation of competitive advantage. Liu et al. (2013), define strategic flexibility as 'the ability to adjust available means to better achieve current and expected future ends, in accordance with an encountered situation' (p. 86). Hence, strategic flexibility measures firms' proactive and reactive abilities to react to external changes and meet changing conditions (Brozovic, 2018; Grewal & Tansuhaj, 2001; Liu et al., 2013; Nadkarni & Herrmann, 2010).

Over the last decade, resilience has become an increasingly important research topic. In the face of rapid change, survival is a critical aspect, and being resilient is crucial for survival (Ruiz-Martin et al., 2018). Resilience as a concept has developed in organisational studies and has attracted scholars' attention specifically in the business field (Bhamra et al., 2011). Resilience is described as an organisation's ability to anticipate, prepare for, respond and adapt to changes or sudden disruptions in survival and prosperity (BSI, 2014). To become resilient, organisations require a set of capabilities to adapt, integrate and reconfigure resources from their internal or external environment to meet the demands of changing conditions. Lee et al. (2013) identify planned resilience and adaptive resilience as the dimensions of organizational resilience. Planned resilience involves pre-disaster activities such as existing predetermined planning and capabilities, whereas adaptive resilience emerges in the post-disaster phase, as organisations develop new capabilities by responding dynamically to unexpected situations. Adaptive resilience requires leadership, external networks, internal collaboration, past experience learning capability and employee wellbeing (Nilakant et al., 2014).

Business Model Innovation

The purpose of business model innovation is to ensure that firms can survive in turbulent environments. There are different types of business model innovation that an organisation can adopt (Giesen et al., 2007; Mitchell & Coles, 2004). Both scholars and practitioners view such innovation as a source of performance and an essential element of an organisation's survival (IBM, 2010; Pohle & Chapman, 2006). Derived from resilient organisations and viewed as the response mechanism of organisations in a turbulent environment (Buliga et al., 2016), business model innovation describes how organisations adapt and then thrive as conditions change (Abraham, 2013). For example, in the case of Covid-19, organisations have been forced to shift their business model. As Seetharaman (2020) described, firms are presented with the choice to take innovative opportunities by identifying and replacing the elements of their business model to meet the changing environment. From a value perspective, business model innovation has three dimensions—value proposition, value creation and value capture (Clauss, 2017)—which firms need to continuously adjust or change (Achtenhagen et al., 2013) to reconfigure their business model dimensions (Massa & Tucci, 2013; Zott & Amit, 2010).

Business Performance in a Turbulent Environment

While some scholars consider financial performance a key construct in explaining firm performance (Boyer, 1999; Chen & Paulraj, 2004), others point to the need to rely on other important indicators to measure performance; for example, indicators such as customer-oriented and supplier-oriented performance (Huo, 2012). Customer satisfaction and market effectiveness are also considered constructs for superior market-oriented business performance (Vorheis & Morgan, 2005). Although performance indicators in turbulent environments are yet to be defined definitively, studies on small firm resilience have shown that resilience performance may include firm sustainability, stability and survival (Batisti et al., 2019). Hence, in a situation where a turbulent environment triggers the survival instinct, resilient firms tend to employ an outside-in perspective by placing the customer at the heart of the business and alerts to address new market opportunities creatively (Gulati, 2010). Therefore, customer orientation values and market effectiveness are also essential performance indicators for firms in a turbulent environment.

Conceptual Model and Propositions

Absorptive Capacity as the Driver for Business Continuity Capabilities

The ability to change and maintain business continuity is determined by other capabilities, skills and competencies such as organisational learning mechanisms (Batisti et al., 2019), learning cultural aspects (Pal et al., 2014) and boundary-spanning capabilities (Golgeci & Kuivalainen, 2020). As noted by various scholars, the ability to manage and transform knowledge is key in an increasingly dynamic environment (Miroshnychenko et al., 2020). Absorptive capacity creates and manages external knowledge for the continuous learning process of an organisation (Liu et al., 2013). According to Yaqun et al. (2015), absorptive capacity facilitates the rapid strategic change of firms in a changing environment. As studies have shown, absorptive capacity is a key construct that influences strategic flexibility, innovation and performance (Ali et al., 2016), and supply chain resilience (Golgeci & Kuivalainen, 2020). Findings of these studies provide important insights, indicating that absorptive capacity is a DC (Zahra & George, 2002) that potentially has an important role in the development of capabilities for business continuity, such as coping, flexibility and resilience. Hence, we propose as follows:

- P1: SMEs' absorptive capacity influences their other business continuity capabilities, including a) coping, b) flexibility and c) resilience, in response to a turbulent external environment.

Business Continuity Capabilities and Business Model Innovation

Business continuity capabilities are crucial for a firm to cope with the unexpected, flexibly respond to a crisis effectively, and resiliently bounce back and nurture future success. Firms rely on these DCs to anticipate and respond to turbulent environments (Karman, 2020). A recent study indicates that coping mechanisms support a firm's decision to develop new business models by focusing on customer centricity, co-creation of value, learning and adaptation capability, insights from external partners and adaptive pricing (Schneckenberg et al., 2017). Various studies have extensively examined firm flexibility as a driver of various types of innovation (Cabello-Medina et al., 2006; Fan et al., 2013; Worren et al., 2002; Zhou & Wu, 2010), including business model innovation (Clauss et al., 2019). Although recent studies have not found a significant relationship between flexibility and business model innovation (see Miroshnychenko et al., 2020), this research proposal argues that this might be

due to the relative stable condition of firms in those studies. As business model innovation is a firm's logical response mechanism to establish a fit within a changing environment (Amit & Zott, 2014), resilient firms are reinventing their business model (Hammel & Valikangas, 2003).

- P2: SMEs' business continuity capabilities, including a) coping, b) flexibility and c) resilience are positively associated with their business model innovation, in response to a turbulent external environment.

Business Model Innovation and Performance

Various scholars have provided evidence that the business model is an important factor in creating superior performance and competitive advantage (Zott et al., 2011). Although previous study findings indicate that the dimensions of business model innovation are all antecedents of firm performance (Clauss et al., 2019), whether business model innovation provides other types of performance indicators—such as customer-oriented performance and market effectiveness in turbulent conditions—is yet to be examined. Thus, we propose:

- P3: Business model innovation by SMEs is positively associated with their a) customer-oriented performance, b) profitability and c) market effectiveness, in response to a turbulent external environment.

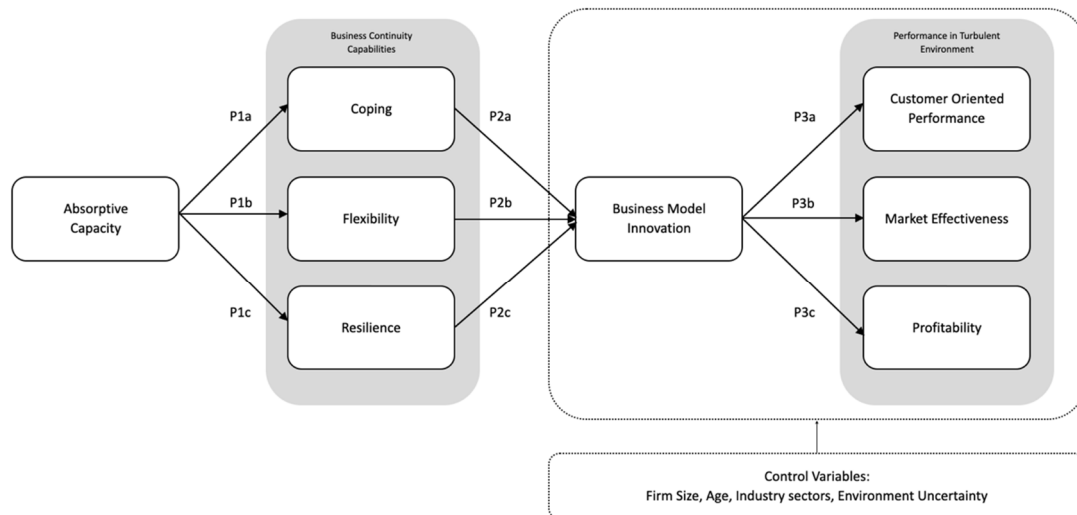
Mediating Role of Business Model Innovation

BMI depends on the coordination of internal and external resource and capabilities (Zott et al., 2011). However, limited attention has been given to the mediating role of BMI in the relationship between organisational capabilities and performance in a turbulent environment. Although, prior studies suggest business continuity capabilities (coping, flexibility and resilience) improve firm performance in a turbulent environment, however the influence mechanism is still unclear (Buliga et al., 2016). Thus, this study introduces BMI as a response mechanism of firms in dealing with turbulent environment. Prior study show that BMI mediates the relationship between organisational integrative capability and firm performance (Pang et al., 2019). Since BMI involves holistic innovation activities, BMI depends on various dynamic capabilities (Teece, 2018). As a specific dynamic capability in a turbulent environment, the business continuity capabilities is key for firm survival which can promote BMI. As indicated in several studies, coping with uncertainties (Schneckenberg et al., 2017), robust strategic action (Clauss et al. (2019), and resilient organisations (Hammel & Valikangas, 2003) drives the development of BMI to improve performance in a turbulent environment. Hence, this study argues that business model innovation also mediates the relationship between business continuity capabilities and organisations' overall performance in turbulent environments.

- P4: Business model innovation by SMEs mediates the association between their business continuity capabilities and their overall performance in response to a turbulent external environment.

Figure 1 shows our conceptual model with all the proposed relationships.

Figure 1. Research Model



Methodology

The study uses a qualitative approach to validate our conceptual model and to see a preliminary test of the proposed relationships. Accordingly, we have conducted in-depth interviews with 14 owners and managers from SMEs in creative industry in East Java province of Indonesia. The data was coded and thematic analysis was conducted using NVivo software. Our key findings are summarized in Table 1.

Data Analysis and Initial Findings

How Covid-19 Pandemic impacts SMEs in the creative industry?

Most respondents shared that Covid-19 Pandemic has negatively impacted their businesses, even destroying their original business in many cases. Regarding the adverse financial consequences, participants in the interview declared that most of their projects were cancelled or postponed. As a consequence of the many others, SMEs suffer loss in revenue, experience delayed payments and a significant drop in profits. Regarding the other downside of the business, SMEs reported problems in their operation mobility, having to lose key business partners, becoming uncompetitive due to significant changes in customers' needs and unneeded service. Others also claimed they are having operation problems and loss of productivity due to working-from-home. However, on the positive side, few SMEs experienced business growth due to increased technology demand. Some SMEs experienced other positive impacts, such as certain anticipated products and services were successful during the pandemic. Other participants claimed to benefit from shifting to temporary products, engaging in new strategic partnerships, and recruiting of new skilled talents from the abandonment from other firms.

Absorptive Capacity

Most respondents in the interview have difficulty in explaining absorptive capacity. Although, most respondents contended that they actively observed their environment, sought new information, and tapped new knowledge during the pandemic. Some respondents described that they were frequently sharing information and new ideas with their employees. Respondents also demonstrated that they were analysing for new opportunities. Some respondents described that learning new capabilities fast was essential during the pandemic.

Coping, Flexibility and Resilience as Business Continuity Capabilities

For many participants, business continuity capabilities were claimed essential for their business survival. The majority of the respondents commonly associate business continuity capabilities with responding quickly, being adaptive, alert, and seeking new opportunities. The majority of the participants also claimed that business continuity capabilities were influential in overcoming barriers and creating opportunities during the pandemic. Regarding the coping capacity of SMEs, some respondents claimed that it was difficult for them to deal with various changes to the government restrictions associated with Covid-19, which was causing tremendous problems for their business. As for flexibility, most respondents demonstrated they were adapting by changing strategy, pricing, and managing flexible work or operations. As for resilience, most respondents demonstrated that they had practised either planned or adaptive resilience during the pandemic. We also found that SMEs who suffer from market power loss tend to demonstrate higher urgency to cope, become flexible, and more resilient than others.

Business Model Innovations

For many participants, the pandemic has disrupted their original business model. Only two respondents declared that their business model was not affected due to increased or stable market power. However, almost all interviewed respondents agreed that BMI was essential to respond to barriers and opportunities. During the pandemic, participants demonstrated that they had to develop new business models such as community-based business models, a new value proposition for new customer segments, a new model for new strategic partners and a new revenue model. Respondents also mentioned that some of the critical factors required for successful business model innovation were the speed for learning new capabilities, a global reference for technology, clear vision with organisation support, and business networks.

Performance in turbulent environment

All the participants shared that both financial and non-financial aspect of the firm performance was vital to evaluate during the pandemic, as reflected by their financial goals and profitability, such as sales, revenue, cost, and cash flow. Regarding the non-financial aspect of the business, the firm performance, such as their ability to retain employees, upgrade their skills and maintain their productivity, was necessary. Also, their ability to maintain customers/ clients' satisfaction and maintain their well-known brand was essential to measure.

Discussion and Implications

The current study makes significant contributions to the existing literature by advancing knowledge on how SMEs anticipate and respond to environmental turbulence by innovating their business models. Based on our initial data analysis, the Covid-19 Pandemic significantly impacts the business's financial and non-financial aspects. The pandemic also caused internal and external barriers, which affected their original business model to lose market power, competitiveness, and profitability. The initial results also show that SMEs demonstrated various business continuity capabilities, such as coping, flexibility, and resilience. The essential capabilities are all essential to respond and anticipate environmental turbulence.

References

Full references are available from the authors upon request.

Table 1. Summary of Findings

Case No.	Industry Sector	Barriers	Opportunities	Business Continuation Capabilities	Disrupted Business Model	Business Model Innovation
SME 1	Animation Studio	Internal	External	C, F, R	Yes	Community-Based BM
SME 2	Visual Communication Design	External	Both	F, R	Yes	New Value Propositions and New Key Partners
SME 3	Apparel Production Company	External	Not applicable	C, F, R	Yes	New Value Propositions
SME 4	Smart City Software & Consultant	Internal	External	C	Yes	Address New Customer Segments and Value Propositions
SME 5	Food Service	External	Both	C, F, R	Yes	New Value Propositions
SME 6	Marketing Agency	External	Both	C, F, R	Yes	New Value Propositions
SME 7	Videography Agency	External	Both	F, R	Yes	Address New Customer Segments and Value Propositions
SME 8	Logistic Software	Internal	External	Not In Crisis	No	None
SME 9	CRM Software	Internal	None	Not In Crisis	No	None
SME 10	Apparel Baby Ergonomics Carrier	Both	Internal	C, F, R	Yes	New Revenue Model
SME 11	Production Management Software	Both	External	C, F, R	Yes	New Customer Segments
SME 12	Marketing & Advertising Agency	Both	External	C, F, R	Yes	New Key Partners and New Value Propositions
SME 13	Clothing	External	Internal	C, F, R	Yes	New Partnership Model
SME 14	Hosting & Server	External	Both	C, F, R	No	None

Note: C = Coping, F = Flexibility, R = Resilience