

**SURVIVING DIGITAL TRANSFORMATION ERA THROUGH
STRATEGIC ENTREPRENEURSHIP WITH COLLABORATIVE
INNOVATION BETWEEN BANK AND FINTECH****Shanti Rachmawati Putri^{1*}, Avanti Fontana²**¹Faculty of Economics and Business, Universitas Indonesia, shanti.rachmawati01@ui.ac.id, *corresponding author² Faculty of Economics and Business, Universitas Indonesia, avanti.fontana@ui.ac.id

ABSTRACT

With the emergence of financial technology (Fintech) players, nowadays, Banks need to be more flexible and faster to respond effectively to customers' growing needs in dynamic and even disruptive markets. The tendency of established banking solely leans on their existing competitive advantage impacting their deficient capability when exploring new business opportunities. Therefore, banks need strategic tools to enhance their exploration capability and increase business innovation performance. In this instance, the innovation process must be fluid, embracing open-collaborative innovation, which extends beyond internal activities, such as start-up collaboration. Collaborative innovation with start-ups like Fintech is critical to excel in digital transformation to provide services that suit consumers' demands and stakeholders. This study addresses the effects of strategic entrepreneurship and collaborative innovation performance in Indonesia's banking industry. This study has used questionnaires developed from a previous study, which enables respondents to display favorable or unfavorable attitudes toward the object of interest. This study was conducted through a survey method. Data were collected using questionnaires distributed to seventy-two managers and top-level management of the banking-based industry in Indonesia. Surveys are analyzed by using Structural Equation Modelling (SEM) analysis with Partial Least Square (PLS) method to assess the structural model (hypotheses). For further study, the researcher should consider the limitation presented in this paper in terms of context and case of the study, as well as a new perspective of research design.

Keywords: Banking, Collaborative Innovation Performance, Resource Orchestration, Strategic Entrepreneurship.

1. Introduction

The disruptive era demands firms to obtain sustainable development to create wealth by forming economies of scale and market strength. In today's business climate, inquire firms to employ strategic entrepreneurship to fulfill their objectives and presence in the market. To implement strategic entrepreneurship in their business, firms possess opportunity-seeking and advantage-seeking behaviors.

With the emergence of financial technology (Fintech) players who are agile, able to see the opportunity, and offer an innovative product to the market faster, Bank seems to struggle given the rigidness of innovation. A bank is a highly regulated industry; therefore, the Regulator supervises every step of the Bank. Therefore, this creates tight competition for the Bank to keep up with the fast-changing market demand. A survey from PWC (2018) further indicated that 49% of managers think that the presence of Fintech is a threat to the existence of the Bank. The affordability of Fintech, which only relies on internet access, is a competitive advantage for the company due to its ability to provide financial services to the underbanked segment that banks cannot reach. However, the problem with Fintech is the lack of funding to continue to innovate – although they are eager to always fulfill the market needs.

On the other hand, banks have sufficient capital but do not dare to explore new opportunities and take the risk to innovate (i.e., lacking opportunity-seeking behavior). Hence, the collaboration of the two financial

instruments is deemed a necessary approach for continuing to serve the market's needs. This is in line with Ketchen, Ireland, and Snow (2007) which combines strategic entrepreneurship with collaborative innovation to achieve competitive advantage.

Collaboration between banking and Fintech has given the opportunity not only to Fintech but also to Bank to share knowledge, and capability, enhancing exploration capabilities (on the Banking side) as well as learning to become more seamless and faster in their innovation capability. Given the statement above, we would like to raise a question, *what are the strategic entrepreneurship factors that can optimize banking capabilities in terms of exploration to achieve business opportunities?*

This research aims to see if there is a link between strategic entrepreneurship and collaborative innovation performance in Indonesia's banking industry. This study will first measure the input process on why banks need to collaborate in a strategic entrepreneurship process consisting of an entrepreneurial mindset, entrepreneurial culture, and entrepreneurial leadership as the input. On the process side, managing resources strategically (resource orchestration) will be evaluated. Hence, we expect this could enhance collaborative innovation performance between Bank and Fintech in the digital era.

2. Literature Review

2.1 Strategic Entrepreneurship

According to Ireland et al. (2001), strategic entrepreneurship is defined as how businesses focus on bringing about change (adapting or reacting) by seizing opportunities created by unpredictability in their external environment. As a result, firms create wealth by finding possibilities in their external environments and developing competitive advantages to exploit them. (Hitt et al., 2001; Ireland et al., 2001). Ireland, Hitt, and Sirmon (2003) develop the early model for strategic entrepreneurship model consists of the following: 1) examines entrepreneurial mindset as the key components for entrepreneurial opportunities, entrepreneurial alertness, real options, and entrepreneurial framework; 2) examine entrepreneurial culture and entrepreneurial leadership as the vital aspects for strategic entrepreneurship; 3) examine on how managing organizational resources derives as the firms' foundation for opportunity- seeking and advantage seeking behaviours. This is based on the resource-based theory, which gives a comprehensive set of actions such as structuring the resource portfolio, bundling the resources of the portfolio into capabilities, and leveraging multiple capabilities – assets to recognize opportunities and develop competitive advantage successfully; 4) applying creativity and developing innovation as the critical outcomes.

2.2 Entrepreneurial Mindset

The entrepreneurial mindset is a method of thinking in business that focuses captures the benefits of uncertainty, which contributes to competitiveness and wealth-generating benefits (McGrath and MacMillan, 2000). Based on Ireland, Hitt and Sirmon (2003) defined recognizing possibilities, entrepreneurial awareness, genuine choices logic, entrepreneurial framework, and opportunity register are all components of an entrepreneurial mindset.

2.3 Entrepreneurial Culture

Internal and external elements that link enterprises' shareholder entrepreneurial approach make up entrepreneurial culture (Ireland, Hitt, and Sirmon, 2003). Entrepreneurial culture influences the behaviour of the firm's stakeholders, allowing them to choose the best strategies for the innovation process and achieve superior results (Yarborough et al., 2011; Leal and Martelo, 2017). Ireland, Hitt, and Sirmon (2003) argue the breadth of entrepreneurial culture consists of promoting innovative ideas and expected creativity, as well as risk-taking, failure tolerance, learning promotion, product, process, and innovation administration, as well as constant change as an opportunity conveyer (Ireland, Hitt, and Sirmon, 2003).

2.4 Entrepreneurial Leadership

Entrepreneurial leadership, according to Covin and Slevin (2002), is the ability to persuade others to manage resources strategically to highlight opportunity-seeking and advantage-seeking behaviour. Entrepreneurial leadership posits six characteristics (Ireland, Hitt, and Sirmon, 2003), namely, nourishing and entrepreneurial capability, protection of innovations that undermine the current company model, deciphering the dominating logic of possibilities, revisiting the "deceptively easy problems," and linking entrepreneurship and strategic management.

2.5 Managing Resources Strategically

Resource orchestration, according to Sirmon, Hitt, and Ireland (2011), consists of two components: resource management (Sirmon et al., 2007) and asset orchestration (Helfat et al., 2007). Resource management is based on Resource Based Theory (RBT), which is defined by values, rare, un-imitated, and un-substituted values (Barney, 1991). Creating these traits are not solely occurred by themselves. According to Sirmon et al. (2011), organizing the resource portfolio, combining resources to build capability, and leveraging capability for market opportunity are all required. These processes are known as resource orchestration which those processes consist of sub-processes such as structuring (acquiring, accumulating, and divesting), bundling (stabilizing, enriching, and pioneering), and leveraging (mobilizing, coordinating, and deploying).

The sub-process of structuring is affected by environmental context, which in turn determines the value creation of the firm (Sirmon, Hitt and Ireland, 2007). The process of forming capabilities is known as bundling. The resources in a firm's portfolio are integrated (i.e., bundled) to form capabilities, with each capacity being a unique mix of resources that allows the firm to take action that adds value to customers (Sirmon, Hitt, and Ireland, 2007). Moreover, processes such as mobilizing, coordinating, and deploying to utilize a firm's skills to create value for customers and wealth for the owner are referred to as leveraging capabilities (Sirmon, Hitt, and Ireland, 2007). Lichtenstein and Brush (2001) believe that a corporation is unlikely to realize value creation unless its skills are properly leveraged in the marketplace.

Concurrent with the development of resource management, Helfat et al. (2007) produced a related framework derived from asset orchestration. There are two primary processes of asset orchestration. The first is search or selection, which requires managers to locate assets, make investment decisions, and construct organizational and governance structures for businesses to develop the business model (Sirmon, Hitt, and Ireland, 2011). Second, the configuration/deployment process necessitates asset coordination, asset vision, and asset nurturing. (Helfat et al., 2007; Sirmon, Hitt, and Ireland, 2011).

2.6 Collaborative Innovation Performance

Collaborative innovation is the process of generating innovative ideas, information, expertise, and possibilities across organizational boundaries (Ketchen, Ireland, and Snow, 2007). Due to the accomplishment of a balance between opportunity and advantage-seeking actions, collaboration allows for firm strategic entrepreneurship (Ketchen, Ireland, and Snow, 2007). Similarly, collaborative innovation enables huge corporations to capitalize on their competitive advantage while also exploring innovation-related opportunities outside their existing sector. Large corporations already have the resources and market strength that small businesses require to defend their innovations against competitors (Ketchen, Ireland, and Snow, 2007). Here, large companies can learn how to think small by interacting with small businesses (Ketchen, Ireland, and Snow, 2007). Despite bureaucracy and rigidity of structure posited by an established firm, the benefit from the collaboration is recouping creativity, which eventually fuels innovation (Esposito et al., 2017).

Innovation performances as the outcome of innovation activities. This has been commonly used in research to indicate how successful the firms' innovation operations are (Xu et al., 2021). The degree to which a firm's innovation process is successful in terms of the outputs of its products or services, processes, innovative marketing tactics, or new organizational methods in business practices, organization, and others is commonly defined as innovation performance (Xu et al., 2021). In this study, we focus on the collaboration between two financial players and explore how these collaborations are able to affect the innovation performance that is collaboratively attained. Collaborative innovation performance is measured following Utoyo, Fontana, and Satrya (2020) through; (1) Technology scouting, (2) Cooperation, (3) Co-creation, and (4) Technology sourcing.

3. Research Method

3.1 Proposed Research Design

The study's hypothesis is that implementing a strategic entrepreneurship method in an established company will improve collaborative innovation performance. The study examines the strategic entrepreneurship process within a dynamic environment context. The conceptual model of this study is illustrated in Figure 3.1. The proposed conceptual model incorporates the strategic entrepreneurship process from Ireland et al. (2003), the input-process-output of the strategic entrepreneurship model from Hitt et al. (2011) as well as Ketchen, Ireland, and Snow (2007) regarding integrating strategic entrepreneurship and collaborative innovation.

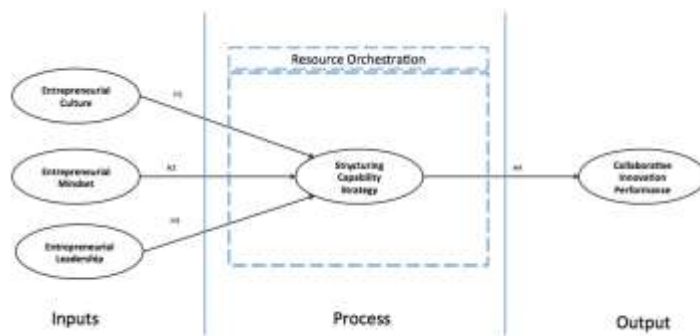


Figure 3.1 Conceptual Research Model

As can be seen in Figure 3.1, there are five main constructs in the research model that will be evaluated, namely, entrepreneurial culture, entrepreneurial mindset, entrepreneurial leadership, structuring capability strategy, and collaborative innovation performance. Each construct consists of research questions' indicators to form a questionnaire. This research empirically develops a test framework and research model, which were made to analyze factors to increase collaborative innovation performance from a strategic entrepreneurship point of view. Moreover, they are expected to give a firm competitive advantage and sustainable performance facing a competitive and hostile business environment in the financial industry in Indonesia.

3.2 Sample and Data Collection Method

To assess the theory verification and hypothesis testing, this study employs quantitative research design as a framework because it is often used in science. Empirical data will be conducted through the survey on the managerial level and top management in private or foreign own banking in Indonesia. The data were collected between January and February 2022. The questionnaire-based survey method was utilized for this study to ensure the universality and reproducibility of the data, as well as the simultaneous exploration of numerous parameters (Kristoffersen et al., 2021). Respondents were selected using the purposive sampling method. The questionnaire items were measured with a six-point Likert scale ranging from 1 ("strongly agree") to 6 ("strongly agree").

3.3 Measurement

This research is a development and modification of prior research by Ireland, Hitt, and Sirmon (2003) about the process of building strategic entrepreneurship, Sirmon, Hitt, and Ireland (2011) about factors that are associated with the process of resource orchestration and Ketchen, Ireland and Snow (2007) regarding integrating strategic entrepreneurship and collaborative innovation. The question derived from Ireland, Hitt, and Sirmon (2003) framework adapted to the business process.

3.4 Method of Data Analysis

Data analysis is utilized as the foundation for statistically demonstrating respondent data. To analyze and evaluate the conceptualization, two-step techniques will be used: measurement model analysis and structural model analysis (Wijanto, 2008). Five data analysis procedures were used in this study: 1) Examining the measurement model; 2) using the structural model to investigate the relationship between all latent variables, and 3) separately assessing each hypothesis and structural model. The data is processed using the SEM approach based on Smart Partial Least Square (SmartPLS). Data analysis and processing were done using partial least squares with the help of SmartPLS 3.0 software (PLS). The study will be conducted using reflective concept testing and formative construct testing.

4. Results and Discussion

4.1 Convergent Validity

The results show:

- Entrepreneurial Mindset, since the loading factor is more than 0.70, all indicators of entrepreneurial mindset can be employed.
- Entrepreneurial Culture, since the loading factor value is greater than 0.70, all entrepreneurial culture indicators can be employed.

- Entrepreneurial Leadership, since the loading factor value is greater than 0.70, all entrepreneurial leadership indicators can be employed.
- Structuring Capability Strategy, since the loading factor value is greater than 0.70, all structuring capability strategy indicators can be employed.
- Collaborative Innovation Performance, since the loading factor value is greater than 0.70, all collaborative innovation performance indicators can be employed.

4.2 Composite Reliability

Composite Reliability and Cronbach Alpha are the two metrics used to assess construct reliability. If the composite reliability and Cronbach Alpha values are both larger than 0.7, the construct is considered reliable. Table 1 presented the reliability of studied variable.

Table 1. Composite Reliability and Cronbach Alpha

	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Capability Strategy	0.926	0.928	0.938	0.602
Collaborative Innovation Performance	0.948	0.950	0.955	0.637
Entrepreneurial Culture	0.955	0.956	0.960	0.634
Entrepreneurial Leadership	0.970	0.971	0.972	0.593
Entrepreneurial Mindset	0.960	0.961	0.964	0.657

Source: SmartPLS 3.0 Calculation

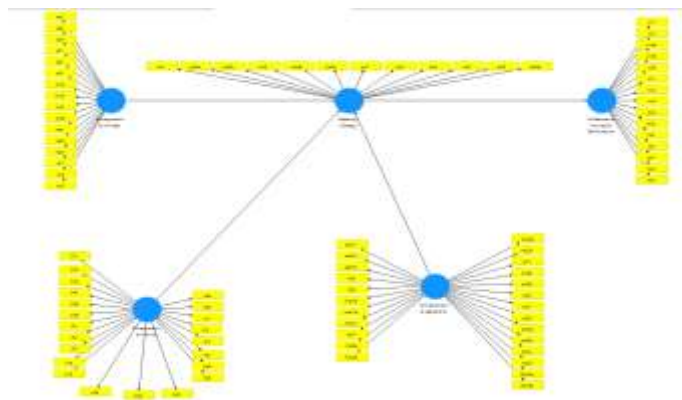


Figure 1. Measurement Model
(Source: SmartPLS 3.0 Calculation, 2022)

4.3 Inner Model Testing

All the R^2 results showed are above 0.67 is substantial. Entrepreneurial Culture, Entrepreneurial Mindset and Entrepreneurial Leadership can be explained by the changes of Capability Strategy variable pertaining 90.2% while 9.8% are caused by other factors outside the model. Capability Strategy variances can be explained by the changes of Collaborative Innovation Performance variable by pertaining 76.1% while 23.9% are caused by other factors outside the model.

Table 2. R-Square

	R Square	R Square Adjusted
Capability Strategy	0.902	0.898
Collaborative Innovation Performance	0.761	0.757

(Source: SmartPLS 3.0 Calculation, 2022)

4.4 Hypothesis Testing

Testing the hypothesis is the procedure to drive the result of accept or reject hypothesis. A hypothesis is a crucial part of any research project. Therefore, statistical tests must be used to test the hypothesis. The T statistic value and the Probability value (P Value) of the relationship between the variables are used to test hypotheses. Table 3 below shows the parameter coefficient.

Table 3. Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Entrepreneurial Mindset -> Structuring Capability Strategy	0.185	0.192	0.140	1.319	0.188
Entrepreneurial Culture -> Structuring Capability Strategy	0.249	0.230	0.137	1.813	0.070
Entrepreneurial Leadership -> Structuring Capability Strategy	0.545	0.558	0.140	3.894	0.000
Structuring Capability Strategy -> Collaborative Innovation Performance	0.872	0.877	0.030	29.424	0.000

(Source: SmartPLS 3.0 Calculation, 2022)

The overall goal of this research is to better understand how entrepreneurial organizational elements interact in the Strategic Entrepreneurship Process. The aim also focuses on the enhancement of Collaborative Innovation Performance in disruptive environment. Table 3 shows Path Coefficient for each direct variables influence result include:

- Entrepreneurial Mindset does not have direct effect on Structuring Capability Strategy since P value is (>0.05).
- Entrepreneurial Culture does not have direct effect on Structuring Capability Strategy as the p-values 0.070 (>0.05).
- Entrepreneurial Leadership positively effect Structuring Capability Strategy with P value is 0.000 < 0.05 . The greater leader of the company emphasizes on Strategic Entrepreneurship behaviors, the better the company's ability to balance exploitation and exploration in the growth of its key capabilities.
- Structuring Capability Strategy positively influences the Collaborative Innovation Performance with P value is 0.000 < 0.05 . The greater company's strategically driven by its own capabilities coherently, the more the company able to amplify their Collaborative Innovation Performance to gain competitive advantage.

5. Conclusion and Implications

The study enriches the strategic entrepreneurship framework, namely entrepreneurial leadership, entrepreneurial culture, and entrepreneurial mindset, as well as resource orchestration variables, namely capability strategy and configuration innovation capabilities. All these variables are measured to find out how much they affect the firms' collaborative innovation performance.

This research has various empirical contributions. First, managers should have practical or relevant knowledge of the Strategic Entrepreneurship Process to integrate opportunity-seeking activities and advantage-seeking activities, resulting in improved collaborative innovation performance. Second, managers should serve as facilitators to guarantee that the firm's entrepreneurial mindset, leadership, and culture are present and nurtured by all the stakeholders in general. Last, to improve collaborative innovation performance, companies can improve their organizational design, strategy, structure, and management process.

Although the study adds additional understanding of the Strategic Entrepreneurship Process by highlighting the importance of Collaborative Innovation and its performance, further research is needed to fully

grasp the ideas of integrating collaborative innovation and its performance in the concept and practice of Creativity and Innovation in particular, and exploitation as well as exploration activities in general of the framework.

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