



Strategic Decision-Making and Firm Performance in Business Ecosystem: A Systematic Literature Review

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Abstract — This study conducts a systematic literature review to examine the correlation between strategic decision-making and the performance of firms within business ecosystems. The study seeks to investigate three specific research inquiries: the recent research worked on the subject, recent patterns on this research, and the theoretical and practical consequences of strategic decision-making and the firms performance within the business ecosystems. By employing an eight-step systematic literature review methodology, we conducted an analysis of 398 papers, which finally selecting and examining five pivotal studies that satisfied the inclusion criteria. The findings underscore the small yet expanding research in this field, underscoring the significance of inventive and data-oriented approaches in improving company performance. The assessment emphasizes the necessity of conducting additional research in order to create comprehensive performance metrics that are specifically designed for collaborative business ecosystems.

Keywords — strategic decision-making, firm performance, business ecosystem, systematic literature review.

I. INTRODUCTION

Organizational performance is a crucial topic in management study and a key criterion for assessing companies, their actions, and environments. This importance is mirrored in its widespread application. No organization desired to record losses for its commercial operations during the accounting period so that organizational managers were encouraged to generate profits during business operations and at the end of the accounting period and must make strategic decisions to achieve organizational objectives as directed by the board and top management, resulting in profitability (Alhawamdeh & Alsmairat, 2019). Managers play a crucial role in decision-making in every firm (Nooraie, 2012). Successful strategic decision-making helps organizations maintain competitiveness, align operations with external environments, and overcome threats and challenges. However, a single poor decision can lead to the demise of an organization, embarrassment, large economic losses, or even bankruptcy (Mueller et al., 2007). Manager involvement in decision-making fosters a sense of belonging and encourages voluntary contributions to improve organizational performance (Noah, 2008).

In the context of a business ecosystem, the concept of performance is related to the operation of the network and the assessment of the ecosystem as a whole, including the potential benefits it brings to its members. Performance indicators are used to measure these benefits, but there is a noted lack of adequate performance indicators specifically for business ecosystems. Traditional methods like the balanced scorecard, which are well-defined for individual enterprises, are not directly applicable to collaborative business ecosystems (Kaplan & Norton, 1996; Graça & Camarinha-Matos, 2017). Performance indicators in this context are quantifiable metrics used by companies to assess their performance according to their established strategic and operational goals. However, despite some research efforts, the



assessment of collaboration benefits within business ecosystems remains an open issue (Graça & Camarinha-Matos, 2017).

Drawing the background of previous discussion, this article aims to deep down explore the relation between strategic decision-making and firm performance in ecosystem context. This article proposes three research question (RQ). RQ1: How many articles have discussed the strategic decision-making and firm performance relation ecosystem context? RQ2: What is the recent research on the strategic decision-making and firm performance relation ecosystem context? RQ3: What is theoretical and practical implication in e strategic decision-making and firm performance relation ecosystem context?

Decision-making is a fundamental activity that occurs in a wide range of settings, such as homes, schools, political and governmental organizations, business boardrooms, and executive offices. Managers engage in the process of identifying and resolving organizational challenges (Hickson, 1986). Harris (2009) defines decision-making as the process of choosing between several options based on personal preferences, which involves the integration of thoughts and actions. Strategic decision-making is centered around the formulation of long-term plans and the enhancement of organizational achievement. Strategic decisions are distinguished from tactical and operational decisions based on their importance in terms of actions taken, resources allocated, and the establishment of precedents (Alhawamdeh & Alsmairat, 2019). Mintzberg et al. (1976) emphasize that strategic decisions possess the qualities of being innovative, intricate, and indeterminate. These judgments typically begin with limited comprehension and necessitate a recursive and dynamic approach to ultimately arrive at a definitive selection.

In the context of supply chain management (SCM), which has evolved towards more integrated collaborative structures, performance measurement and metrics have been significantly developed. For instance, Gunasekaran et al. (2001) developed a framework to promote a better understanding of the need for performance measurement and corresponding metrics in SCM. These metrics focus on the main activities of the supply chain: plan, source, make/assemble, and deliver, and are grouped according to their relevance at the planning, strategic, tactical, or operational levels (Gopal & Thakkar, 2012). Moreover, business ecosystems can be classified as long-term strategic collaborative networked organizations, specifically as a sub-class of a virtual organizations breeding environment (VBE). A VBE is a source network of organizations providing a suitable environment for the rapid formation of goal-oriented networks targeting specific business opportunities. Therefore, a business ecosystem typically promotes common business processes, provides interoperable collaboration infrastructures, and facilitates trust-building among its members (Camarinha-Matos & Macedo, 2010).

Despite these advancements, the challenge remains in developing performance that can adequately measure the benefits of collaboration within business ecosystems. This is an area that requires further research and development (Graça & Camarinha-Matos, 2017). Traditional methods like the balanced scorecard, which are well-defined for individual enterprises, are not directly applicable to collaborative business ecosystems. This article is necessary in order to highlight the previous research in the relation of strategic decision and firm performance in business ecosystem. Thus, this article will provide a shed of light of what this has been and what is the potential research for future studies.

II. METHOD

This article deploys a systematic literature review (SLR). A systematic literature review is a rigorous research approach that entails a methodical process of locating, evaluating, and



integrating research findings in order to address a particular research query. The main objective of SLR is to gather all relevant empirical material that meets predetermined eligibility criteria in order to address a given research issue. This approach yields substantial empirical evidence regarding the efficacy and results of interventions or the associations between variables (Xiao & Watson, 2019). SLR is relevant when the scope of the review is specific and when the dataset is minimal and manageable so that the reviewer can manually review (Donthu et al., 2021).

To conduct the systematic literature review, we complied to the eight-step systematic literature review process outlined by Xiao and Watson (2019) which depicted in Fig. 1 and detailed in the following manner:

- Formulate the problem
- Develop and validate the review protocol
- Search the literature
- Screen for inclusion
- Assess quality
- Extract data
- Analyze and synthesize data
- Report findings

Step 1 - This review, motivated by decision-making and firm performance relation in business ecosystem context focuses on three research questions; (1) How many articles have discussed the strategic decision-making and firm performance relation ecosystem context; (2) What is the recent research on the strategic decision-making and firm performance relation ecosystem context; and (3) What is the theoretical and practical implication in e strategic decision-making and firm performance relation ecosystem context.

Step 2 - This step creates a detailed plan for how the review will be conducted, including criteria for selecting studies and methods for data extraction and synthesis. We build some inclusion and exclusion criteria on this step. This protocol should be validated to ensure it is robust and comprehensive. The inclusion and exclusion criteria should be specified in detail, and the rationale or justification of each criterion should be explained in the report.

Step 3 - We conduct a comprehensive search of literature using Scopus data base. We used query: (TITLE-ABS-KEY ("decision making" AND "strateg*") AND TITLE-ABS-KEY ("performance*") AND TITLE-ABS-KEY ("ecosystem*")). This query is a robust to capture all keywords related to “decision making” and “strategy”, and the relation to “performance” which can include firm or organizational performance, and lastly in the context of “ecosystem”. This step results in 398 articles.

Step 4 - We narrow down the body of work by reviewing titles, abstracts, and full texts to include only those studies that meet the predefined criteria. This step involves applying the inclusion and exclusion criteria to filter out irrelevant studies, the criteria are in English language, in Business, Management and Accounting field, and only article document type. This step results in 40 articles.

Step 5 - We evaluate the quality of the included studies to ensure they meet the necessary standards for reliability and validity using full article skimming. This step is essential to ensure that the findings of the review are based on high-quality evidence. Of the 40 article that meet our inclusion criteria, 10 is not fully accessible as they need subscription and 25 are not relevant to the decision-making and firm performance in business ecosystem context.

Step 6 - We systematically extract relevant data from the included studies using online download to review the whole article. This step involves collecting information that will be used in the analysis and synthesis of the review.

Step 7 - We analyze the extracted data and synthesize the findings to answer the research questions. We build a table to summarize the important point for each paper.

Step 8 – We write a comprehensive report to disseminate the findings from the literature review. This report should include the methodology, results, and conclusions drawn from the review. The findings from the literature search, screening, and quality assessment should be reported in sufficient detail.

After doing the all 8 steps, the final paper which will be reviewed are five articles. This few articles shows that the research in decision-making and firm performance in the business ecosystem are still under research which show openly potential research opportunity in the future. We will explain in detail those articles in the next part below.

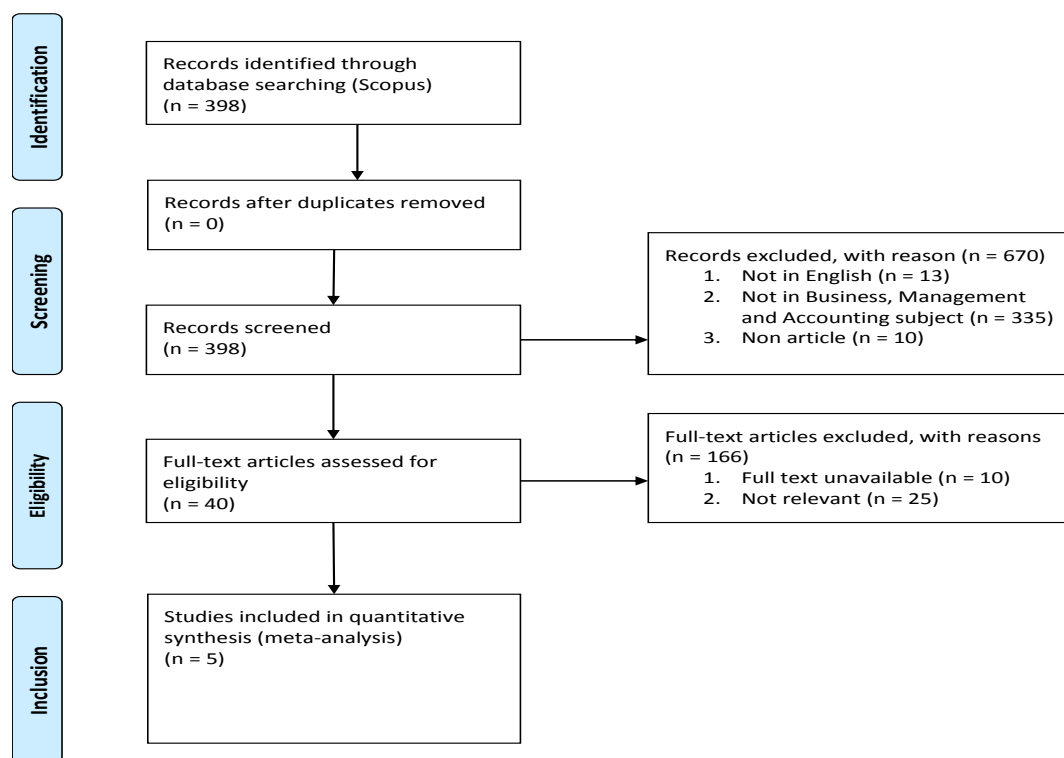


Fig. 1 Selection process of the article reviewed

III. RESULT AND DISCUSSION

A. Description of Publications

Table 1 shows the description of the five publications. It sorts each publication from the highest cited to the least. The first publication with the most cited article in decision-making and firm performance in ecosystem is “Smart hospitality: Interconnectivity and interoperability towards an ecosystem” by Buhalis & Leung (2018) in International Journal of Hospitality Management with 255 citations in 2018. Then Safari & Saleh (2020) is in the second place with article “Key determinants of SMEs’ export performance: a resource-based view and contingency theory approach using potential mediators” which was published in Journal of Business and Industrial Marketing in 2020 with 93 citations. Next coming up the article “Business-to-business platform ecosystem practices and their impacts on firm performance: evidence from high-tech manufacturing firms” by Wang et al. (2022) in 2022 with 5 citations. Lastly, there are two articles with no citation titled “The role of platform



ecosystem configuration toward performance bifurcation” and “Tricks of the trade: Understanding and utilizing influencer tactics to improve retailer performance” published both in 2024. These few publications indicate that the impact of decision-making in firm performance in the context of ecosystem has not been explored and leave researchers with opportunity to do more research in this field.

TABLE 1 Description of Journal

Title	Author(s)	Journal	Citation	Country
Smart hospitality: Interconnectivity and interoperability towards an ecosystem	Buhalis & Leung (2018)	International Journal of Hospitality Management	255	United Kingdom
Key determinants of SMEs’ export performance: a resource-based view and contingency theory approach using potential mediators	Safari & Saleh (2020)	Journal of Business and Industrial Marketing	93	Qatar
Business-to-business platform ecosystem practices and their impacts on firm performance: evidence from high-tech manufacturing firms	Wang et al. (2022)	Journal of Manufacturing Technology Management	5	Taiwan
The role of platform ecosystem configuration toward performance bifurcation	Duan et al. (2024)	Journal of Innovation and Knowledge	0	China
Tricks of the trade: Understanding and utilizing influencer tactics to improve retailer performance	Rosengren et al. (2024)	Journal of Retailing and Consumer Services	0	Sweden

B. Discussion of Selected Publications

Buhalis & Leung (2018) discusses the integration of smart technology in the hospitality industry, focusing on aspects such as revenue management, customer loyalty, information technology, and sustainability. It emphasizes the use of data, AI, big data, and IoT to enhance decision-making, marketing strategies, and operational efficiency in hotels. The smart hospitality framework enables stakeholders to leverage data for strategic planning, communication, and operational improvements, ultimately reengineering the industry through technology-driven decision-making. The smart hospitality framework facilitates strategic decision-making in the hospitality industry by enabling fully integrated internal and external applications and data exchange from the cloud. It allows hotel managers to obtain comprehensive internal and external, empirical and contextual data, and make use of decision support systems (DSS) and yield management software for scenario testing. This paper also underscores the importance of several technologies in improving operational efficiency and marketing strategies in hotels, such as AI to facilitate human-to-machine and machine-to-machine interactions or automate the aggregation and consolidation of data from multiple sources, big data to enable hospitality practitioners to forecast and predict business trends such as occupancy, rates, yield, labor costs, and investment decisions and IoT to radically change the business processes by collecting substantial amounts of internal and external data through sensors and implementing smart operations and management, such as monitoring guest locations and delivering customized messages via smartphones.



Safari & Saleh (2020) emphasizes the key aspects that determine the export performance of small and medium-sized firms (SMEs). The study investigates the impact of internal and external factors on the export performance of small and medium-sized enterprises (SMEs), with a focus on the function of business strategy, innovation strategy, and export marketing strategy as mediators. Data was gathered from Vietnamese small and medium-sized enterprises (SMEs) across several industries and evaluated using statistical techniques. The analysis revealed substantial correlations between these parameters and the export performance of SMEs. The study employed the Resource-Based View (RBV) methodology to examine the determinants of small and medium-sized enterprises' (SMEs) export performance. The study specifically investigated how SMEs might gain a competitive advantage by accumulating resources such as assets, capabilities, organizational processes, knowledge, corporate characteristics, and information. The Resource-Based View (RBV) approach relies on crucial variables such as management decisions (MD), organizational decisions (OD), external factors, and control aspects such as export marketing strategy, business strategy, and innovation strategy. This study also discovered that business strategy has a significant impact on the export performance of small and medium-sized enterprises (SMEs). Furthermore, it has been determined that this factor is the sole influential mediator that boosts the export operations of companies in Vietnam, directly affecting their export performance (EP). The study emphasized the importance of implementing successful business strategies in order for SMEs to expand, establish competitive advantages, and sustain a strong competitive position in both local and worldwide markets.

Wang et al. (2022) examine the correlation between product platform strategy and company performance in business-to-business (B2B) platform ecosystems. To highlight the significance of market, technological, and organizational innovativeness in influencing and improving the favorable impacts of product platform strategy on firm performance. The study emphasizes the crucial significance of innovativeness at the company level in enhancing the strategy of product platforms in high-tech enterprises that operate within ecosystems based on platforms. The study indicates that the favorable benefits of product platform strategy on firm performance can be enhanced by the interdependent and complementary elements of market, technological, and organizational innovativeness. However, a high level of market innovativeness is essential for enterprises to benefit from a product platform strategy. This is because it encourages the adoption of new technologies both internally and externally, leading to increased efficiency in product platform development. Additionally, it aids companies in enhancing their new product development (NPD) and generating customer value through the implementation of strategies to generate new preferences and desires, as well as fulfil customer needs.

Duan et al. (2024) discusses the various aspects of platform ecosystems, including platform competition, network effects, and the role of competition and governance in platform performance. The studies emphasize the importance of understanding the dynamics within platform ecosystems, such as network effects, competition, and governance, to make strategic decisions and enhance performance outcomes. Insights are provided into the factors influencing platform success, tipping points, and the impact of regulations on technological development. According to the research, network effects and competition significantly influence platform success or failure. Network effects, both direct and cross-network, are crucial drivers of platform ecosystem performance, fostering innovation and value creation. An increase in network effects generally facilitates performance increases in the platform ecosystem. Competition, on the other hand, negatively affects platforms. High competition requires a platform to attain a very high threshold value to perform well, whereas low



competition allows a platform to withstand longer and yield higher performance. This study also highlights that platform governance plays a pivotal role in shaping the competitive landscapes within ecosystems and significantly affects digital platform performance.

Lastly, Rosengren et al. (2024) discusses the impact of influencers on retail, emphasizing the need for retailers to reorganize products, focus on personalized experiences, and create fast and relevant content to compete with influencers. It explores how influencers are perceived as effective in generating awareness, providing personalized recommendations, and creating a sense of community for consumers. By using mix method approach, this study finds out that influencers add value for consumers in terms of product demonstrations by offering first-hand demonstrations that create functional value. These demonstrations provide convenient ways for consumers to learn how to use a product or service, saving them time and energy prior to purchase. The strategies suggested for retailers to work with influencers effectively include Understanding the “totality of consumer needs”, “limiting choice overload”, “leaning into disaggregation”, “fast and relevant content creation”. This finding highlight that influencers are favored in both experiential and relational retailing activities, while also providing some functional value through more efficient search.

These five articles are the summary of what research in strategic decision-making and firm performance has been in business ecosystem context. The important point for each is shown in Table 2. Although it has only five past research history, this has shed the light of what previous research was done, and for that the future studies can use those as the basis groundwork to do more research on this field.

C. Impact for Theoretical and Practical Issues

The study by Buhalis & Leung (2018) highlight the importance of using data-driven decision-making to improve company performance in the hotel industry, where smart technology is being integrated. This integration is crucial within ecosystem contexts. The usage of AI, big data, and IoT offers a conceptual framework for comprehending how the integration of extensive data from both internal and external sources can enhance strategic planning and operational efficiency. Safari & Saleh (2020) in their study that uses Resource-Based View (RBV) framew provides a theoretical knowledge of how internal and external resources contribute to the development of competitive advantages. Wang et al. (2022) expand on the theoretical discussion by emphasizing how market, technological, and organizational innovativeness can amplify the favorable impacts of product platform strategies on firm performance, illustrating the interconnectedness of these innovativeness aspects. Lastly, Duan et al., (2024) study in the dynamics of platform ecosystems, highlighting the importance of network effects and effective governance in driving performance. This contributes to a deeper theoretical understanding of strategic decision-making and governance in digital platform contexts.

In practical context, these studies provide valuable information for enhancing company performance by making strategic decisions and integrating technology. In the research by Buhalis & Leung (2018), they emphasize the tangible advantages of using intelligent hospitality frameworks, which allow hotel management to utilize artificial intelligence, big data, and the Internet of Things (IoT) to improve operational efficiency and marketing tactics. Safari & Saleh (2020) emphasizes the importance of small and medium-sized enterprises (SMEs) in developing efficient business strategies to improve their export performance. They propose that firms should focus on strategic resource allocation and market positioning. In their study, Wang et al. (2022) offer practical guidelines for building an environment of innovation within companies in order to optimize the advantages of product platform



strategies. Duan et al. (2024) emphasizes the significance of responding to network effects and establishing efficient governance to enhance platform performance. They propose that companies must proactively manage competitive environments. Finally, Rosengren et al. (2024) implies how merchants may improve their performance by partnering with influencers, generating customized experiences, and producing relevant material. This emphasizes the significance of adaptable methods in the changing retail environment. These practical suggestions highlight the importance for companies to implement innovative, data-driven strategies and good governance along with good strategic decision in order to achieve better firm performance.



TABLE II Description of Journal

Title	Study Design	Sample	Context	Theory	Component/Variable	Performance
(Safari & Saleh, 2020)	Quantitative (survey)	364 exporters	SME ecosystem	Contingency theory, resource-based and market-based view	Managerial determinants, organizational determinants, external determinants	Export performance
(Wang et al., 2022)	Quantitative (survey)	191 high-tech firms	Business-to-business (B2B) platform ecosystems	Contingency effect	Market innovativeness, technological innovativeness, organizational innovativeness, product platform strategy	Firm performance
(Buhalis & Leung, 2018)	Conceptual paper	Not applicable	Hospitality ecosystem	Not applicable	Direct stakeholders: suppliers, wholesalers, retailers, service providers indirect stakeholders: butchery, vinery, farm, transportation, warehouse	Strategies performance
(Duan et al., 2024)	Multidimensional platform network model	Not applicable	Platform ecosystem	Lotka-Volterra complex system theory	Characteristics: <ul style="list-style-type: none"> • Growth rate • Competition (price model, feedback mode, governance mode) • Cross-Network Effect (homing mode, interaction mode) 	Performance bifurcation
(Rosengren et al., 2024)	Mix method (survey and focus group)	203 participants (survey) and 21 informants (focus group)	Retail ecosystem	Not applicable	Survey <ul style="list-style-type: none"> • Functionality (Assortment, value for money, search efficiency, convenience) • Experiential (Inspiration, product visualization, product exploration, entertainment) • Relational (Expertise, personal relationship, transactional relationship, decision comfort) Aggregate dimension from focus group <ul style="list-style-type: none"> • Functional activities • Experimental activities • Relational activities 	Retailer performance



IV. CONCLUSIONS

This article has deployed a systematic literature review to explore the research on strategic decision-making and firm performance in business ecosystem context. Using Scopus database, this article identified a limited number of studies that explore the research field, which indicate the research gap and a potentially future exploration. The findings from the reviewed studies suggest that strategic decision-making, supported by innovative technologies and data-driven approaches, plays an important role in enhancing firm performance in collaborative business environments.

The practical implications of this review emphasize the need for firms to adopt advanced decision-making frameworks and performance metrics in the business ecosystems context. By exploiting technologies such as AI, big data, and IoT, organizations can improve operational efficiency and strategic alignment, which ultimately produces competitive gain. This article also highlights further research to develop and validate performance indicators that capture the unique benefits of collaboration within business ecosystems, so that it can provide a robust foundation for both academic and practical application.

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