

# Dynamic Capability for Digital Transformation in Family-Owned Company: A Systematic Review

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## ABSTRACT

Dynamic capability has been used as the basis for organizations to build digital transformation to stay competitive in the market. This literature review aims to determine the significance of dynamic capability and digital transformation in family businesses. Using a systematic literature review methodology and utilizing the Dimensions database, three articles that met the criteria and fulfilled the goal of the review were selected. The findings indicate that family businesses have important dynamic capabilities that can aid their survival and expansion through digital transformation. Therefore, family business owners and managers should be able to identify and effectively use their dynamic capabilities to implement digital transformation in their business operations.

**Keywords:** Digital Transformation, Dynamic Capability, Entrepreneurship, Family Business, Innovation

## INTRODUCTION

Businesses of all sizes and industries are being increasingly affected by digital technologies (Löhde et al., 2020). The age of digital transformation is considered a key factor in the long-term profitability of any business, as prior research shows that companies can contribute to their success and create competitive advantages using digital technologies (Soluk et al., 2021). Its role is magnified in family businesses, as innovation enhances their chances of survival across generations and is compatible with family businesses' typical

focus and vision for continuity (Cesaroni et al., 2021).

Over the past decade, research on innovation in family firms has gained momentum as many scholars believe that the involvement of family members in owning, leading, or managing the business can influence a company's transformation. However, openness to technological advances is a challenge for family firms that have been offering the same products or services for a long time. Business operations have not undergone major changes, and employees have developed their routine workflows. These patterns are often found in family businesses with active family ownership as they tend to cling to their traditional core competencies and business models (Löhde et al., 2020; Soluk & Kammerlander, 2021).

Dynamic capability has become one of the most active lines of research in the strategic management study, as this field of study describes how organizations respond to rapid technological and market changes. It has been reported that enterprises must establish significant dynamic capabilities to quickly invent, use and change business models to stay competitive in the rapidly developing digital market (Warner & Wäger, 2019). However, only a few studies examined how organizations, especially family-owned firms, develop their dynamic capability for digital transformation. This represents an important topic to study because, in Asia, Latin America, Europe,

and the United States, families own or control over 80% of companies. Furthermore, family firms account for the majority of employment and produce more than half of the gross domestic product (GDP) in most developed countries (Duarte Alonso et al., 2018).

Several studies have explored the importance of dynamic capabilities in family-influenced firms within the framework of digital transformation (Soluk et al., 2021). This systematic literature review focuses on this topic and presents three studies involving family-owned businesses that have implemented a dynamic capabilities approach to facilitate the successful navigation of digital transformation (Putritamara et al., 2023; Rashid & Ratten, 2020; Soluk & Kammerlander, 2021). Specifically, this paper aims to summarize the most recent findings on the implementation of dynamic capabilities in building digital transformations implemented by family businesses.

The rest of this paper is arranged as follows. First, it provides a theoretical background on dynamic capability, digital transformation, and family business. Second, it explains the methodology used in this systematic review. The results are followed by a discussion of the findings and the limitations of each study. Lastly, the paper concludes with suggestions for potential areas for future research.

## **THEORETICAL BACKGROUND**

### **Dynamic Capability**

Since its introduction, dynamic capabilities have drawn much interest in the management literature. Dynamic capability is defined as “firm's ability to integrate, build, and reconfigure internal competences to address changes in the business environment” (Teece, 2018, p. 40). The concept of dynamic capacities has been suggested to describe an organization's capacity to alter its resource base. Resources and processes must be continually modified and redesigned for organizations to thrive in

global settings. According to Teece (2018), the three levels of capabilities are sensing, seizing, and transforming activities, which refer to the identification and creation of technological changes, the mobilization of a firm's resources to take advantage of these opportunities, and the ongoing transformation of the organization.

The basic principle is that dynamic capabilities enable firms to create and preserve competitive advantages by remaining adaptable in a competitive environment that is complex and uncertain (Li & Chan, 2019). Furthermore, it is suggested that companies should view dynamic capability as crucial for accelerating the diffusion of digitalization into daily operations. The study shows that there are three dimensions as the foundation of dynamic capabilities development, which are “purposes, people capability, and process” (Yang & Yee, 2022, p. 2).

### **Digital Transformation**

Consumer needs and behavior have changed as a result of digital transformation and subsequent business innovation. This has put established firms, such as family companies, under pressure and has disrupted several markets. Digital transformation is conceptually defined as “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies” (Vial, 2019, p. 121).

According to Verhoef et al. (2021), three significant factors force the need to do digital transformation. First, an increasing number of technologies have risen since the advent of the World Wide Web and its broad implementation, which fuelled the development of e-commerce. Next, the competitive environment is evolving because of these new technologies. Competition has expanded across borders and is intensifying. Finally, digital transformation alters customer behaviour. Buyers are considering their purchases to online sellers using market data, and digital

touchpoints play an important role in the customer experience that affects both online and offline sales. In addition, the use of online searches and social media has increased customer knowledge and connectivity.

### **Family Business**

Putritamara et al., (2023) stated that a company qualifies as a family business if (1) family members are in key managerial positions, (2) family members control all business operations, and (3) the family is the largest shareholder. Family-owned enterprises are clearly important to the modern economy, but the typical literature on organizational and management studies has not given them much attention (Canterino et al., 2013). Due to the rapid development of technology and the uncertainty of the global economy, family businesses need to be able to adapt and learn new skills to remain profitable. To respond to fast-changing consumer needs without sacrificing technological excellence and quality, this type of company must evolve and develop transformational abilities (Diaz-Moriana et al., 2020). Therefore, family firms must create a variety of organizational learning methods, ongoing discussions within the company, and a transformational mindset; to accomplish this challenging task. Although family firms have many attributes that are similar to those of other organizations, the interaction between family and work connections creates unique organizational characteristics and dynamics (Canterino et al., 2013).

According to the literature, family businesses often run differently from non-family operations, primarily because they have a distinct founder spirit, tradition, vision, aims, and values that define their core fundamental characteristics. Studies exploring the dynamics of system transitions have become increasingly prevalent. The system must adapt to survive, which is the driving force behind this growth. The system must best use most of its resources during the transition process.

The nature and complexity of the transformation appear to be in tension with the dynamics and culture of the majority of family-owned businesses (Canterino et al., 2013).

### **Developing Dynamic Capability for Digital Transformation**

Vial (2019) proposed the contribution of dynamic capabilities as a theoretical basis for digital transformation in organizations. The study emphasizes the process of digital transformation in which firms feel driven to act to achieve or preserve their competitive advantage. Furthermore, it is suggested that companies use dynamic capabilities as a basis to investigate the system that allows businesses to engage in the transformation to promote business renewal. It is recommended that organizations concentrate on three important areas. The first step is to build organizational capabilities to support the organization's ongoing transformation. Next is to make sure integrative capabilities function in the areas of digital platforms and ecosystems. The third is micro-foundations, which aid in the operation of digital transformation in companies.

Another previous research by Warner & Wäger (2019) also explores how traditional firms build their dynamic capability for digital transformation. The study highlights a process model consisting of nine micro-foundations to identify the common elements that cause, facilitate, and prevent the development of dynamic capacities for digital transformation. It shows that digital transformation is a continual process involving incorporating new digital technologies; and that agility is the fundamental mechanism for the renewal of the company's "business model, collaborative approach, and culture" (Warner & Wäger, 2019, p. 1).

### **METHODOLOGY**

A systematic literature review (SLR) provides a foundation for scholarly research (Xiao & Watson, 2019). The standalone

review used in this paper presents an overview of previous work, tests hypotheses, develops theories, and critically assesses a body of work (Kraus et al., 2020). Additionally, a standalone literature review can be a helpful summary of a subject for planning professionals seeking data to support their choices; hence, the quality of SLR can have highly useful implications.

As the subject of entrepreneurship, and family business management in particular, is still a new discipline, numerous studies from authors with diverse backgrounds have been published using terminology that is either slightly different for the same study object or the same for various objects. As a result, within a given research topic, authors from various backgrounds view constructions, ideas, etc. through their own lenses, creating a dispersed field. Therefore, SLRs' ability to synthesize the subject and establish a universal language can help resolve this problem (Kraus et al., 2020).

The SLR method used in this paper is conducted by (1) searching available

published papers via an online database, (2) looking for answers to particular research questions, and (3) finding relevant academic literature related to dynamic capability, digital transformation, and family business. As Kraus et al. (2020) suggested, SLR should use a database that offers a comprehensive collection of research; thus, the Dimensions database platform is used in this study.

Figure 1 illustrates how the literature was selected for this standalone systematic review. It starts with finding published papers using the keywords “dynamic capability” and “digital transformation” and “family business” from 2013 to 2023, generating a total of 1993 papers. For an entrepreneurship literature review, Kraus et al. (2020) recommend journal articles only as sources of literature, which filter papers into 309 articles. Of these, 67 were found to match the research categories of Industry and Innovation. Finally, three research papers were carefully selected to meet the goals of this literature review.

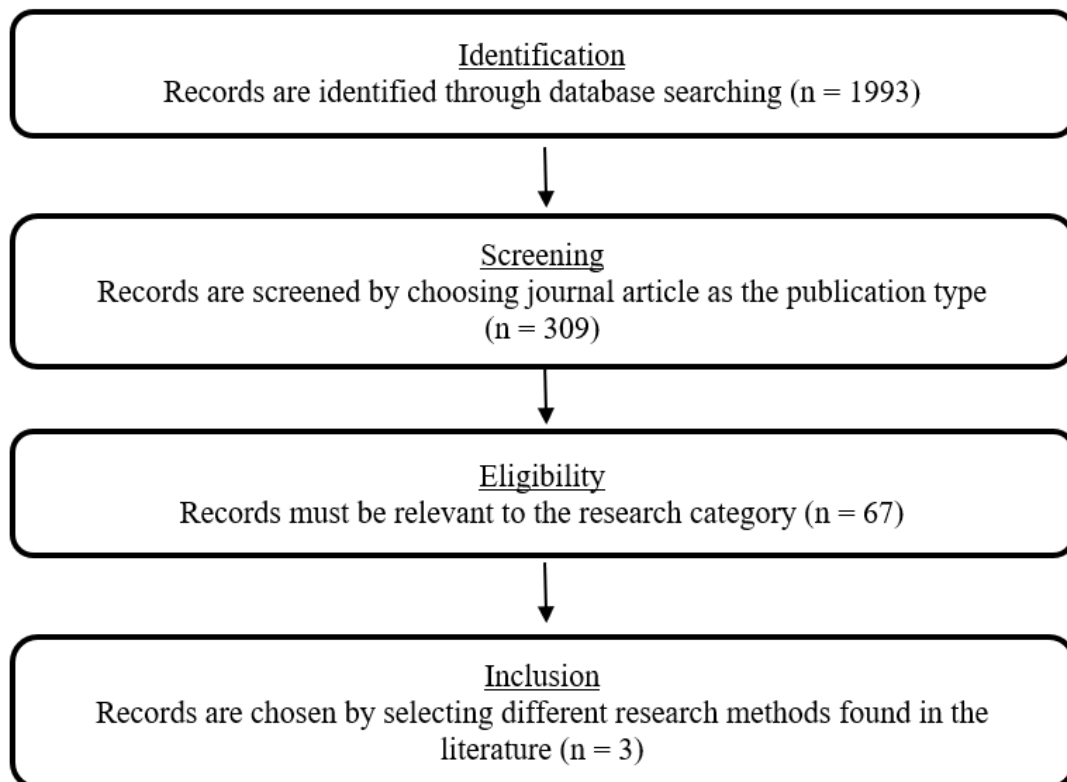


Figure 1. Literature Search

## FINDINGS AND DISCUSSION

Table 1 provides an overview of three selected studies in the areas of dynamic capability, digital transformation, and

family business, all of which are reputable articles published in recent years, and the methods used consist of qualitative and quantitative research.

Table 1. Overview of Selected Articles

No.	Authors (Year)	Journal	Theoretical Framework	Methodology	Research Participants
1	Sumayya Rashid & Vanessa Ratten (2020)	Journal of Family Business Management	Digitization, Dynamic capability, Family-owned business, Survival	Qualitative, Phenomenology design	24 Family-owned businesses in Pakistan
2	Jonas Soluk & Nadine Kammerlander (2021)	European Journal of Information Systems	Digital transformation, Dynamic capabilities, Technology adoption, Family business	Qualitative, Case study design	15 Family-owned manufacturing firms from Germany, Austria, and Switzerland
3	Jaisy Aghniarahim Putritamara, Budi Hartono, Hery Toiba, Hamidah Nayati Utami, Moh Shadiqur Rahman, Dewi Masyithoh (2023)	Sustainability (Switzerland)	Dynamic capabilities, Digital transformation, Business resilience	Quantitative, Survey design	351 Family businesses and 37 Non-family businesses in Indonesia

Rashid and Ratten seek to define the function of the dynamic capacities approach for the survival of family-owned businesses in the digital world, specifically in Pakistan. The study sheds light on the impact of digitization on the business landscape of family businesses and identifies the additional dynamic capabilities required for their survival. The results of the research show that family-owned businesses (FOBs) face difficulties, and these areas are very important to them. The three areas of focus include “crafting digital mind-set”, “digital phronesis”, and “making brand more human” (Rashid & Ratten, 2020, p. 379-382). In crafting a digital mindset, family companies are shifting to a digital strategy in which numerous interactions with customers are required by utilizing online platforms that can improve engagement with customers. Further, to foster a business's entrepreneurial spirit, new

structures, and values must be established. In digital phronesis, family businesses must improve their digital intelligence, because the massive disruption caused by the digital wave cannot be addressed simply by establishing an online system. There should be behavioral and attitude adjustments to choose the best digital channel to better utilize the company's resources. Lastly, family firms are to examine consumer preferences and behaviors using data provided by the IoT, machine learning, and artificial intelligence eras. Such data are competitive assets for businesses.

Some limitations found by Rashid and Ratten include the sample used for the research being scattered around different states of Pakistan, which may not necessarily represent the country's family businesses. In addition, the study is purely qualitative; thus, a quantitative analysis might provide a new context to the analysis.

Soluk and Kammerlander discuss the potential role of dynamic capabilities in helping family-owned firms with their digital transformation. The findings reveal the digital transformation activities observed in family-owned firms, including their motivations for digital transformation, the challenges they face, and the strategies they use to overcome these challenges. It is proposed that there are three stages of digital transformation in family firms: “process digitalisation, product and service digitalisation, and business model digitalisation” (Soluk & Kammerlander, 2021, p. 1). Process digitalization refers to the transformation of business information and processes from analog to digital. Family businesses started the transformation process when they realized that there was a gap between internal requirements and existing IT standards, and when there were demands from business associates to comply with IT standards. The stage after process digitalization is known as product and service digitalization because it includes the incorporation of digital technologies into the company's goods and services, also the digitalization of supplier and customer relationships. When businesses realized, there were technological advantages to using more digital technology for their goods and services, and when customers asked for partially or entirely digital goods and services, businesses started the product and service digitalization stage. As the last stage of digital transformation, business model digitalization is characterized by the development of comprehensive digital solutions and the transformation of business models. Family firms entered the business digitalization stage when internal digital expertise was available for implementing digital projects.

Several limitations were found in the research by Soluk and Kammerlander, who did not provide a comprehensive analysis of all the possible factors that may influence digital transformation in family-owned firms. Additionally, as with all case-based

studies, the authors did not aim for a statistical approach.

Putritamara et al. investigate business resilience during the Covid-19 pandemic by exploring the relationship between dynamic capability, digital transformation, and the ability of family and non-family firms in Indonesia to address the challenges of the pandemic. With their resources, family businesses may create new business models and be more flexible in responding to changes as a result of the collaboration between dynamic capability and digital transformation. The main result of the research indicates that dynamic capability plays a crucial role in improving business, and together with digital transformation strategies, it can improve business resilience. The study found that three components of dynamic capabilities are required to gain resilience: “seizing, reconfiguring, and changing the model” (Putritamara et al., 2023, p. 4). Seizing allows family businesses to determine the technologies used by various market sectors. Reconfiguring enables business owners to manage their current resources and outsource the remainder. Additionally, companies may preserve their profitability and competitive advantage, which can be accomplished through improved dynamic capability.

However, it is important to note that the research by Putritamara et al. was restricted to beekeeping enterprises in Indonesia, which may limit the comprehensiveness of their findings to other industries. Additionally, the authors acknowledged that there was a lack of evidence concerning the association between dynamic capability and digital transformation specifically in beekeeping companies.

The three studies above explore the significance of dynamic capabilities in the survival and success of family-owned firms in the digital era. They highlight the importance of dynamic capabilities in enabling family businesses to adapt to the digital environment and survive amid various challenges. Family companies can

use a dynamic capabilities strategy to help them develop, reorganize, and integrate internal and external abilities to adapt to the changing business environment.

Family-owned businesses can benefit from a dynamic capabilities approach in several ways. First, dynamic capabilities enable a firm to identify its internal strengths to stay competitive in the market. Rashid & Ratten (2020) identify several capabilities that family-owned businesses need to develop to survive in the digital era. These include strategic flexibility, innovation, entrepreneurial orientation, knowledge management, and organizational culture. Furthermore, Soluk & Kammerlander (2021) suggest that family-owned firms can leverage their unique resources, such as family values and a long-term orientation, to develop dynamic capabilities that enable them to adapt to digital transformation challenges.

Second, family firms integrate external abilities into their digitalization efforts. Soluk & Kammerlander (2021) emphasize that external funding plays an important role in driving the digital transformation process. The authors propose that dedicating public funds that are accessible, easy to ask for, and support efforts to digitalize their processes, products, and business models appear to be critical enablers of the transformation.

Lastly, family businesses can develop dynamic capabilities by building adaptive capabilities and resilience, which are crucial for their survival and growth in the face of changing business environments. Putritamara et al. (2023) suggest that dynamic capability plays an essential role in resilience during Covid-19 by allowing entrepreneurs to use emerging technologies that can be leveraged to enhance digital transformation efforts.

## **CONCLUSION AND RECOMMENDATION**

The acceleration of digital transformation, which remains one of the biggest possibilities and challenges for businesses, is remarkable.

The business environment has been evolving, and family businesses have been impacted by this revolutionary digitization just like other enterprises. All three studies reviewed above argue and show that family businesses have certain important capabilities that can aid their expansion in the digital world. Dynamic capability has been shown to be crucial for promoting digital transformation because it encompasses not only the ability to innovate; but also, the adaptability and agility necessary for strategic management. The requirement, however, is that these abilities should be recognized and used effectively.

As for the implications, this systematic study assists owners and managers of family-owned businesses in understanding the functions of dynamic capability and digital transformation to maintain sustainability and competitiveness. However, certain limitations were observed during the development of this literature review. The keywords used in the search string were to provide specific coverage, but this may have restricted the review from gathering insights from other authors, who may have emerged outside of the terms chosen. Furthermore, one database was utilized for this review, which may have influenced the number of results obtained and analyzed. Incorporating other credible databases into this search may yield more reliable findings for inclusion in a literature search.

To sum up, through this systematic review, it is expected that future research can address the limitations of the selected studies. It is encouraged that more family-owned enterprises participate in the study of dynamic capability and digital transformation. It is also important to consider comparative studies of family businesses in various countries, sectors, and industries.

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## REFERENCES

1. Canterino, F., Cirella, S., Guerci, M., Shani, A. B., & Brunelli, M. S. (2013). Leading transformation in a family-owned business: insights from an Italian company. In *Int. J. Entrepreneurship and Innovation Management* (Vol. 17, Issue 3).
2. Cesaroni, F. M., Diaz, G. D. C., & Sentuti, A. (2021). Family firms and innovation from founder to successor. *Administrative Sciences*, 11(2). <https://doi.org/10.3390/ADMSCI11020054>
3. Diaz-Moriana, V., Clinton, E., Kammerlander, N., Lumpkin, G. T., & Craig, J. B. (2020). Innovation Motives in Family Firms: A Transgenerational View. *Entrepreneurship: Theory and Practice*, 44(2), 256–287. <https://doi.org/10.1177/1042258718803051>
4. Duarte Alonso, A., Kok, S., & O'Shea, M. (2018). Family Businesses and Adaptation: A Dynamic Capabilities Approach. *Journal of Family and Economic Issues*, 39(4), 683–698. <https://doi.org/10.1007/s10834-018-9586-3>
5. Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2020). The art of crafting a systematic literature review in entrepreneurship research. *International Entrepreneurship and Management Journal*, 16(3), 1023–1042. <https://doi.org/10.1007/s11365-020-00635-4>
6. Li, T. (Carol), & Chan, Y. E. (2019). Dynamic information technology capability: Concept definition and framework development. *Journal of Strategic Information Systems*, 28(4). <https://doi.org/10.1016/j.jsis.2019.101575>
7. Löhde, A. S., Campopiano, G., & Gimenez Jiménez, D. (2020). Digital business transformation in family firms: how the owning family sets the scene. In *A Research Agenda for Family Business* (pp. 261–273). Edward Elgar Publishing. <https://doi.org/10.4337/9781788974073.00022>
8. Putritamara, J. A., Hartono, B., Toiba, H., Utami, H. N., Rahman, M. S., & Masyithoh, D. (2023). Do Dynamic Capabilities and Digital Transformation Improve Business Resilience during the COVID-19 Pandemic? Insights from Beekeeping MSMEs in Indonesia. *Sustainability (Switzerland)*, 15(3). <https://doi.org/10.3390/su15031760>
9. Rashid, S., & Ratten, V. (2020). A dynamic capabilities approach for the survival of Pakistani family-owned business in the digital world. *Journal of Family Business Management*, 10(4), 373–387. <https://doi.org/10.1108/JFBM-12-2019-0082>
10. Soluk, J., & Kammerlander, N. (2021). Digital transformation in family-owned Mittelstand firms: A dynamic capabilities perspective. *European Journal of Information Systems*, 30(6), 676–711. <https://doi.org/10.1080/0960085X.2020.1857666>
11. Soluk, J., Miroshnychenko, I., Kammerlander, N., & De Massis, A. (2021). Family Influence and Digital Business Model Innovation: The Enabling Role of Dynamic Capabilities. *Entrepreneurship Theory and Practice*, 45(4), 867–905. <https://doi.org/10.1177/1042258721998946>
12. Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40–49. <https://doi.org/10.1016/j.lrp.2017.06.007>
13. Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
14. Vial, G. (2019). Understanding digital transformation: A review and a research agenda. In *Journal of Strategic Information Systems* (Vol. 28, Issue 2, pp. 118–144). Elsevier B.V. <https://doi.org/10.1016/j.jsis.2019.01.003>
15. Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*,



- 52(3), 326–349.  
<https://doi.org/10.1016/j.lrp.2018.12.001>
16. Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. In *Journal of Planning Education and Research* (Vol. 39, Issue 1, pp. 93–112). SAGE Publications Inc. <https://doi.org/10.1177/0739456X17723971>
17. Yang, Y., & Yee, R. W. Y. (2022). The effect of process digitalization initiative on firm performance: A dynamic capability development perspective.

*International Journal of Production Economics*, 254.  
<https://doi.org/10.1016/j.ijpe.2022.108654>

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