

Article

# Developing a model for digital adoption in family business: A proposed research framework

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**Abstract:** Digital technology is becoming more and more popular very quickly. This is changing every part of the business and having a big effect on how it works. Unfortunately, no business can avoid the effects, problems, and chances that come with digital change. Companies are also forced to change how they do things. Given this context, numerous organizations are unprepared to transform. There are no exceptions made for the family business. The family business is anticipated to embrace digitalization as a widely popular business technique in many locations globally. Its participation in the digital economy is still very important. Unfortunately, there are not many studies on how digital technology is used in family business. When compared to other types of businesses in general, the family business is distinguished by several distinctive qualities that set it apart from other types of enterprises. Consequently, there exists a tension between the perceived gradual nature of change in family businesses and the swift pace of digitalization. This discrepancy highlights the urgent need for further exploration into the integration of digital technology within the context of family businesses, as well as the development of strategies to support their successful digital transformation amidst these distinctive organizational dynamics. This research aims to identify the crucial aspects that contribute to the successful implementation of digitalization in the family business. The adopted research method for this study involves conducting a comprehensive literature review. This approach entails systematically reviewing and analyzing existing academic and industry literature on the utilization of digital technology in family businesses. This study proposes a research design to investigate the use of digital technologies in family businesses. The study also presents a suggested mixed-method approach, combining qualitative and quantitative methods and propositions.

**Keywords:** digital adoption; family business; mixed methodology; key success factors; case study

## 1. Introduction

The family business is a mode of conducting business that is quite common all over the world. It dominates 80%–98% of global companies [1–3], thus playing a crucial part in a nation's economic development [4,5]. About 70%–75% of national income in many countries is contributed by the family business. A further 50%–75% of the world's entire population of working age is employed by it [6]. As a result, it is a reliable economic power source for businesses of all sizes, from small to multinational [7]. Hence, significant corporate actors are considering the necessity of digital adoption due to the crucial importance of continuity for them [8–12].

Indonesian family businesses share some commonalities with family businesses globally, but there might also be aspects that differentiate them. Family businesses

around the world often prioritize long-term growth and stability over short-term profits. This can be due to a desire to preserve the business for future generations. Family values like loyalty, trust, and shared goals can influence decision-making within the business. Ensuring a smooth transition of leadership to the next generation can be a common challenge for family businesses globally. However, there are also potential factors that differentiate Indonesian family businesses from those in other countries. Indonesian culture emphasizes collectivism, respect for hierarchy, and maintaining harmonious relationships. This might influence management style and decision-making. The role of family networks in Indonesian business can be significant. Government regulations and access to financing might also differ from other countries. Indonesia is a developing economy. Family businesses in this context might be more risk-taking and entrepreneurial compared to those in more developed economies.

Digital technology is becoming more and more popular very quickly. This is changing every part of the business and having a big effect on how it works. It is generally inseparable from the presence of digitalization [13] and radically alters the idea of management and leadership. This study explored how the family business will approach digital adoption. Cahyadi and Magda [13] mentioned that adaptability to digitalization is a key indicator of a business's success. The Internet is used for company development as part of digital infrastructure. A limited firm can avoid the consequences, difficulties, and possibilities that arose from the digital revolution. It compels enterprises to overhaul their infrastructure. Given this context, numerous organizations are unprepared to transform. The family business is also required to embrace digitalization, which is a widely practiced business approach in many nations throughout the world. The majority of research on digitization was conducted at non-family companies and academic institutions. Researching digital adoption in the family business is crucial for gaining a comprehensive grasp of the field. Comprehending the digital integration inside the family business is crucial, as it needs to be prepared to embrace this trend. Scholars highlighted the significance of business change for the family business [14].

Furthermore, experts have disclosed that the present moment is the ideal time to digitize the business. Shortening the bureaucratic process and preserving an entrepreneurial spirit in the family business is essential [15]. This research explores the current trends in digital adoption literature. It aims to analyze whether family business leaders or successors own unique characteristics in adopting digitalization through the evidence. Furthermore, this study will try to create contributions toward future practice in the family business discipline in the form of a model that can be utilized by the family business to prepare for the process of digital adoption. It is vital to support the main priorities of Indonesian family businesses over the next two years, namely changing or adapting business models and increasing the use of new technologies.

## **2. Materials and methods**

The research philosophy of this study is pragmatic, focusing on solving practical problems and contributing to the future practice of the family business. Pragmatic

employs a variety of methodologies, from qualitative to quantitative methods. The family business is a complex setup. According to Tagiuri and Davis [16], a family business consists of seven interest groups with the perspective, goal, and dynamic. Moreover, it is dense with learning-by-doing and immense tacit knowledge. So, practical meaning is suitable to this context. In addition, it becomes more challenging to investigate digital adoption since it shifts the social paradigm.

Consequently, this research will utilize primary and secondary source data from the best practice of digital adoption in the family business to explore the key success factors within the family business digital adoption. The second part is an approach to theory development. It sets the foundation for the research design, deciding the type of reasoning [17], and also several reasons as suggested by Easterby-Smith et al. [18]. First, it allows scholars to make a more informed decision. Second, it will distinguish between what strategies and methodologies work and what does not work. Last, it allows the research design to be adaptable, particularly in facing constraints. There are three types of reasoning [19]: deductive, inductive, and abductive. The family business is unique and will have a lot of unexpected variables. Therefore, abductive reasoning, generalizing from the interactions between the detail and the broad, will be suitable to be utilized.

This research selects a mixed-method (qualitative-quantitative) study as the research choice [20]. To carry out the mixed-method study, the study researched the technological entrepreneurship factors in nanotechnology businesses [21], which employed the mixed-method study, specifically interviews and questionnaires. This research will also employ a combination of open and closed data and qualitative and quantitative variables. It is considered that the mixed method is the most suitable method to be applied in the context of this research. The qualitative and quantitative study is conducted sequentially in this research, and lastly, the results are conveyed in combination. The sequential exploratory design uses the qualitative method to explore the phenomenon and subsequently uses the quantitative method to generalize the findings [20]. In other words, it validates exploratory dimensions from a small number of participants to generalize from a more significant number of respondents. In the data collection sequence, this research begins with qualitative data collection to explore the issue, and then quantitative data are collected. Qualitative data is given more importance to achieve real insight regarding the topic's issues and nature [20]. Moreover, this method allows individuals to become familiar with such issues as the core objective [21]. This study attempted to gather quantitative evidence to achieve generalizability based on the qualitative findings. The literature was reviewed initially in this investigation. Next, the characteristics influencing digital adoption in the family business were determined. Furthermore, the quantitative data was gathered using online surveys.

The questions were generally developed with the following six wh-question marks: how, what, why, when, where, and who [22]. Based on the research questions, there were five key questions, as follows:

- 1) How is the digital adoption process in your company in detail (involving actors, developing routines, using technology, needed time, key competencies, and capabilities)?
- 2) What does digitalization look like in your company?

- 3) Which data are available in digitalized form?
- 4) What motivates digitalization in your company?
- 5) How dynamic have the changes been within the digital adoption process?

Each interview will take time for 25–50 min on average. Open and axial coding approaches were employed accordingly. The output of this phase is an interview transcript. The participants are family owner-employees and family owners who work in the company. Moving on to the analysis phase. The interview transcript will be analyzed by following the thematic analytical procedures to identify the family business's constructs and dimensions of digital adoption factors. Moreover, it will be summarized on the proposed framework model and the relationship.

In the second phase, this study tries to generalize the findings using a quantitative method. After the initial exploration, the author uses the qualitative findings to create a quantitative phase. This phase involves the design of instruments to measure research variables, developing activities in experimental interventions, or making typological designs using existing instruments. Quantitative instruments, interventions, or variables are used in quantitative data collection and analysis procedures [20]. First of all, a survey will be conducted, questioning the constructs and dimensions that have been found in the qualitative phase previously. The questionnaire will be prepared by employing the interview findings and coding after the validity test. The study utilized a questionnaire, specifically an online questionnaire, that will be answered by many respondents from selected family businesses. The questionnaire answers will be analyzed quantitatively. This research will employ the PLS3 software because the number of respondents was less than two hundred [23]. Moreover, to examine the reliability of the questionnaire, this study will utilize the partial square method, and then *T*-statistics will be used to investigate the expected relationship between the variables. The respondents of this mixed-methods study will be selected conveniently from family-owner employees of the family business.

### 3. Results and discussion

This research constructs the state-of-the-art data by reviewing relevant works of literature. In an attempt at parsimoniously heightening understanding of the family business literature, this study has fused the family business topic into a digital adoption theme. At this stage, the identification phase consists of searching for articles from a variety of database sources. This study searched three different databases: Scopus, ProQuest, and Emerald, to ensure the quality of the found articles. Additionally, the brackets “AND” were utilized in the search process to merge the two extensive search queries that were produced. The further selection process and results are provided in **Table 1** below.

**Table 1.** Selecting process and result.

Steps	Scopus	ProQuest	Emerald	Additional
1) Keyword searching in the database	9	5	120	-
2) Screened relevant titles, abstracts, and keywords	8	1	28	-
3) Articles sought for retrieval	7	1	28	-
4) Eligible to criteria	6	0	2	4

The first one identifies all of the appropriate keywords for digital adoption, and the second one determines the appropriate keywords for the family business. In total, the author found twelve articles included in the review.

There have only been a few numbers of academics who have investigated this subject, even though digital adoption is extremely important to family businesses. Eleven of the twelve publications are research papers, and the remaining one is a review paper. There has been research conducted on this subject in a variety of countries, including France [24], Germany [25–30], India [31], Japan [32], Pakistan [33], and various European nations. Research predominantly occurs in Europe and examines wineries from many angles. No research has been conducted in Indonesia so far. The purpose differs across the twelve works of literature. Ano and Bent [24] investigated the human elements involved in implementing digital strategies. Rashid and Ratten [33], and Soluk and Kammerlander [30] utilized dynamic capabilities to analyze the family enterprise and more. This research will incorporate and modify the central concepts of Basly and Hammouda [34] and Soluk and Kammerlander [30]. The author considered the information to be contemporary and reliable and found their analysis beneficial for constructing the proposed model.

Digitalization encompasses a broad range of technological advancements and their integration into business operations. In the context of family businesses, this can manifest in several key areas, such as operational digitalization, marketing and sales digitalization, and product and service digitalization. Family businesses can leverage digital tools and technologies to streamline internal processes and enhance efficiency. This could involve implementing customer relationship management (CRM) systems to centralize customer data and interactions or adopting enterprise resource planning (ERP) software to integrate various business functions (e.g., accounting and inventory management). The rise of digital marketing channels presents opportunities for family businesses to expand their reach and connect with new customer segments. Social media platforms, online advertising tools, and e-commerce platforms offer valuable tools for marketing and selling products or services directly to consumers. The digital realm opens doors for family businesses to innovate and offer new digital products or services. This could involve developing mobile apps or online platforms that enhance customer experiences or integrating digital components into existing product offerings (e.g., smart home appliances with internet connectivity).

Certain characteristics of Indonesian family businesses can act as facilitators for digital adoption. For example, strong family values that prioritize long-term sustainability can create a supportive environment for investments in digital transformation, recognizing the long-term benefits for the future of the business. However, some characteristics might also present challenges for digital adoption. For instance, a lack of familiarity with technology among older family members or a risk-averse culture within the family might require strategies to bridge the digital skills gap and promote a culture of innovation.

Furthermore, the importance of protecting socio-emotional wealth becomes fundamental for the family business. The family business is willing to use non-economic logic when this attribute is threatened. Moreover, they will risk the company solely to maintain the socio-emotional wealth. The value of socio-emotional wealth is deeply anchored to family members and non-family members in the family business.

Basly and Hammouda [34] revealed influencing factors toward digital entrepreneurship adoption based on the socio-emotional wealth perspective. Based on socio-emotional wealth, family business characteristics are formed by several factors. Those factors are idiosyncratic, human resources, family ownership, and willingness to change. Finally, the propositions are:

Proposition 1: Socio-emotional wealth conceived by the family business influences the digital adoption decision and process.

Proposition 2: Idiosyncratic attitudes owned by the family business influence the digital adoption decision and process.

Proposition 3: Human resources managed by the family business influence the digital adoption decision and process.

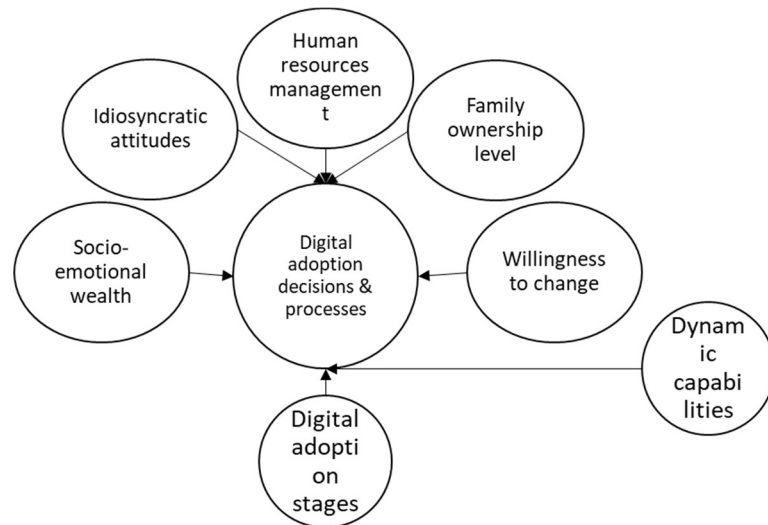
Proposition 4: Family ownership in the family business influences the digital adoption decision and process.

Proposition 5: Willingness to change the family business influences the digital adoption decision and process.

The stages of digital adoption also include process, product/service, and business model, depending on the dynamic capability. The transfer of information and business processes from analog to digital is called process digitization. Digital technology integration into a company's goods and services, as well as the digitization of the interactions between the company and its suppliers and customers, are the hallmarks of product and service digitalization. Transforming business models and developing comprehensive digital solutions are considered to be business model digitalization. Companies start the internal and external stages of the digitization process. Internally, the firm is aware of a discrepancy between its technically outdated internal conditions and relevant IT standards; however, external triggers arise from requests from business partners for the alignment of IT standards and the provision of digital information. The deployment of digital technology is intended to increase efficiency and cut expenses [35]. Basic digital technology is still being used today, including enterprise resource planning, the usage of RFID tags, and electronic invoices. At this point, the result is a digital process. Dynamic capability is known as the company's ability to respond to changing environments [36]. The high-volume rise of digital technology is restructuring the business and vividly changing the concept of management and business. In this topic, digital adoption is vital because it drives the boosting of digital technology's benefit to develop the company's capabilities [37–39]. The relationship between dynamic capability and strategic management has been studied pretty much, and it has been found that there is a significant influence between them. Therefore, the propositions are:

Proposition 6: Digital adoption stages influence the digital leadership decision and process in the family business.

Proposition 7: Dynamic capability represented in the digital adoption stage and possessed by the family business influences the digital adoption decision and process in the family business. The proposed research framework is provided in **Figure 1** below.



**Figure 1.** Proposed research framework.

#### 4. Conclusion

In conclusion, the rapid increase in digital technology is reshaping all aspects of the company and significantly influencing its operations. Given this context, numerous firms are unprepared to transform, even the family business. This study tries to recognize and visualize models and relationships between the family business and digital adoption. This manner attempts to offer a state-of-the-art perspective on the opportunities coming up from digital adoption for the family business. This study investigated the relationships between family business characteristics, digital adoption stages, dynamic capabilities, and digital adoption decisions and processes. By exploring these factors, we aimed to contribute to the understanding of how Indonesian family businesses can navigate the digital transformation landscape. The findings suggest specific family business characteristics facilitate digital adoption, while others might pose challenges. The characteristics are socio-emotional wealth, idiosyncratic attitudes, human resources management, family ownership level, and willingness to change. These insights provide valuable guidance for Indonesian family businesses as they embark on their digital journeys. Furthermore, this research contributes to the family business discipline by proposing a research framework and highlighting the unique context of Indonesian family businesses. By delving deeper into this area, future research can explore potential areas within family business and digital adoption employing the mixed method to grasp comprehensive results.

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