

Challenges and Opportunities of Digital Transformation in Traditional Businesses

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Abstract

Digital transformation is a strategic necessity for traditional businesses to survive and compete in the digital era. This research aims to identify the challenges and opportunities faced by traditional businesses in the digitalization process. Using a qualitative approach, this study analyzes data from several case studies of traditional businesses in the trade and services sectors that are undergoing the digital transformation process. The results show that the main challenges include technological limitations, low digital competence of human resources, organizational culture resistance, and limited capital. On the other hand, opportunities that can be utilized include broader digital market access, operational efficiency through automation, and product innovation based on customer needs. Successful strategies include HR training, adaptation of organizational culture, selection of appropriate technology, and collaboration with external parties. This research contributes to the digital transformation literature and offers practical recommendations for businesses and policymakers in supporting inclusive and sustainable digital transformation in the traditional business sector.

Keywords: digital transformation, traditional business, challenges, opportunities, adaptation strategies

Introduction

The rapid development of digital technology has brought about major changes in the business world. Technologies such as the internet, cloud computing, artificial intelligence (AI), and the Internet of Things (IoT) not only bring new innovations, but also change the way companies run operations and interact with customers (Rane, 2023). In this context, digitalization is no longer just an option, but rather an important strategic necessity to maintain business competitiveness in the midst of increasingly fierce and dynamic global competition (Jusuf, 2022). Companies that are able to effectively utilize digital technology have a greater chance of surviving and thriving in this era of digital transformation (Khurana et al., 2022). Although the development of digital technology provides various opportunities, many traditional businesses still rely on conventional methods in carrying out their operations and marketing strategies (Bist et al., 2022). This creates a considerable gap between traditional businesses and the demands of a market that is now increasingly influenced by technological advances. Changes in consumption patterns and customer expectations that increasingly lead to the use of digital platforms demand that traditional businesses adapt (Tao et al., 2022). If not transformed immediately, the business risks losing market share and falling behind competitors who are quicker to adopt digital technology (Mohammadi et al., 2023). Therefore, digital transformation is an important step to take to bridge this gap and ensure business continuity in the digital age.

The urgency of digital transformation for traditional businesses is increasingly evident as this process is the key to improving operational efficiency, expanding market reach, and delivering a better and more personalized customer experience (Olorunyomi Stephen Joel et

al., 2024). By adopting digital technology, traditional businesses can reduce costs, speed up business processes, and utilize data for more informed decision-making (Rauf et al., 2024). However, the reality is that not all traditional businesses are ready and able to optimize this transformation (Sia et al., 2021). Limited resources, lack of technological knowledge, and resistance to change are often the main obstacles to effective digital transformation (Bellantuono et al., 2021). This shows that while digital transformation is essential, there are challenges that traditional businesses must face in order to adapt and thrive in the digital age (Zhang & Chen, 2024).

In undergoing the digital transformation process, traditional businesses face various complex challenges. One of the main obstacles is the limitation of technology that is not fully integrated or not in accordance with business needs. In addition, the availability of competent human resources in the digital field is also an obstacle, considering that digital transformation requires special skills that many traditional business people do not have (Chen et al., 2021). Equally important, organizational culture's resistance to change often slows down the adaptation process of new technologies (Warrick, 2023). In addition, limited capital and supporting infrastructure, such as stable internet access and adequate digital devices, are also significant obstacles that must be overcome so that digital transformation can run smoothly and provide optimal results for traditional businesses (Achieng & Malatji, 2022).

Despite facing various challenges, digital transformation also opens up great opportunities for traditional businesses to thrive. One of the key opportunities is access to a much wider digital marketplace, allowing businesses to reach new customers both within and outside of their previous geographical areas. In addition, the application of digital technologies such as automation and system integration can improve operational efficiency, reduce costs, and accelerate business processes (Aldoseri et al., 2023). Digital transformation also drives product and service innovations that are more responsive to changing market needs, so that traditional businesses can be more adaptive and relevant in the eyes of consumers (Enrique et al., 2022). By optimally utilizing these opportunities, traditional businesses can not only survive but also grow in the digital era.

While the opportunities for digital transformation are huge, there is a real gap between the potential and the challenges facing traditional businesses. To survive and thrive, traditional businesses must overcome barriers such as technological, human resource, and capital limitations, as well as organizational cultural resistance (Verma & Sybol, 2025). This requires the right strategy in managing change, including investment in human resource training, selection of appropriate technology, and a change in mindset to be more open to innovation. With a planned and sustainable approach, traditional businesses can bridge this gap, make the most of digital opportunities, and maintain their competitiveness in an increasingly digital marketplace (Bhawna et al., 2024).

The purpose of this research is to comprehensively identify the challenges and opportunities faced by traditional businesses in the digital transformation process. This research also aims to understand how traditional businesses can overcome these obstacles and what strategies can be implemented so that digital transformation can run effectively and provide optimal benefits. Thus, the research results are expected to provide practical recommendations for traditional businesses and related stakeholders in facing the evolving digital era.

Method

This research uses a qualitative method with a case study approach to deeply explore the challenges and opportunities faced by traditional businesses in the digital transformation process. The qualitative method was chosen because it allows researchers to comprehensively understand the context, experiences, and perceptions of business people. Data was collected through in-depth interviews with owners and managers of traditional businesses undergoing digital transformation, as well as direct observation of the process of implementing digital technology in business operations. This approach provides rich and detailed insights into the barriers faced and strategies implemented in dealing with change in the digital era. Thus, this research can provide a complete picture and relevant recommendations to support the success of digital transformation in traditional businesses.

Results and Introduction

1. Demographics Answer

This research examines several traditional businesses engaged in various business sectors, such as retail, culinary, and manufacturing services. The businesses varied in size, ranging from micro, small, to medium-sized enterprises, with a length of operation between 5 and 15 years. The owners and managers interviewed have experienced various challenges in running their businesses, especially related to digital transformation. The status of digital transformation in these businesses also varies, from the early stages of only using social media as a marketing tool, to those that have implemented digital systems more thoroughly, such as digital cashier applications and cloud-based inventory management. The following is a summary of the traditional business profiles that became case studies in this research:

Table 1 Demographics Respondents

No	Business	Business Sector	Business Size	Length of Operation	Digital Transformation Status
1	A	Ritel	Micro	7 years	Use of social media for marketing
2	B	Culiner	Small	10 years	Digital cashier system and online ordering
3	C	Manufacturing	Medium	15 years	Cloud-based inventory management and ERP
4	D	Ritel	Micro	6 years	Social media and digital cashier apps
5	E	Culiner	Small	8 years	Digital ordering and online marketing

The above data reflects variations in the level of digital technology adoption in traditional businesses, which forms the basis for analyzing the challenges and opportunities in the digital transformation process in this study.

2. Challenges in Digital Transformation

Digital transformation in traditional businesses is not an easy and instant process, but is full of challenges that are multidimensional. One of the most fundamental challenges is the technological barrier, especially in small and medium-sized businesses that often do not have adequate hardware or software (Willets & Atkins, 2023). Limited digital infrastructure, such as slow or unstable internet connections in certain areas, hinders the integration of technology in business operations (Munachi Ijeoma Ononiwu et al., 2024). In addition, limited human resources are a crucial issue. Many business owners and their employees do not have sufficient digital competencies to operate technology-based management systems, such as digital cashier applications, e-commerce platforms, or automated financial recording systems. Lack of

training, low digital literacy, and lack of access to technology education make the adaptation process even more difficult.

Another challenge comes from the aspect of organizational culture that tends to be resistant to change. Many traditional businesses are run through generations, so conservative mindsets are still dominant. Fear of failure, loss of control, or doubts about the effectiveness of technology often lead to internal resistance to digitalization initiatives. There are also many business owners who do not realize the urgency of digital transformation, or are reluctant to change conventional business methods that are considered "good so far." Lack of leadership or management support for innovation also contributes to the slow process of change.

From a financial perspective, limited capital is another major barrier. Initial investment in technology equipment, digital platform subscriptions, and human resource training costs are significant. With limited finances, businesses often delay or even avoid the digitalization process because it is considered risky and does not provide immediate benefits in the short term. The cumulative impact of all these challenges is the delay in the digital transformation process, unpreparedness in facing market disruption, and the widening gap between traditional businesses and competitors who have implemented digital strategies consistently. If not addressed immediately, these challenges can lead to decreased competitiveness, business stagnation, and even the potential loss of customers who are now increasingly digitally literate and demand faster, easier, and technologically integrated services.

3. Opportunities that Can Be Utilized

The results show that while traditional businesses face various challenges in the digital transformation process, most informants also recognize that there are great opportunities that can be utilized to support the sustainability of their business. One of the main opportunities identified is the opening up of wider digital market access. Businesses realize that marketing and sales patterns have undergone a significant shift, with consumers now more actively using social media and e-commerce platforms to search for and purchase products. Some respondents noted that since starting to market their products digitally, their market reach has increased, even beyond their previous operational boundaries.

In addition, operational efficiency through process digitization was also an important finding in the study. Businesses that have adopted digital systems, such as cashiering apps, automated inventory management, or cloud-based bookkeeping, report a decrease in administrative workload and an increase in service speed. This has a direct impact on increased productivity and operational cost savings. These findings show that technology integration is not only beneficial for marketing, but also for internal process efficiency.

Another opportunity that emerged from the interviews was the ability to innovate products and services. Some businesses are customizing their products based on digital consumer preferences, for example by adding online ordering features, customer service via WhatsApp, or customized product packaging for long-distance delivery. These innovations are proven to increase customer satisfaction and encourage repeat purchases. In general, the results of this study confirm that traditional businesses that are able to recognize and take advantage of opportunities from digital transformation are potentially more adaptive, competitive, and sustainable in the face of changing market dynamics.

4. Strategies for Overcoming Challenges

Based on field findings, the strategies implemented by traditional businesses to overcome the challenges of digital transformation show a variety of adaptive and contextual approaches. One of the main strategies identified was strengthening human resource capacity through

training and digital competency development. Some businesses independently conducted simple in-house training on the use of digital platforms, while others attended external training organized by government agencies or local business communities. This training is considered quite effective in improving employees' digital literacy and accelerating the technology adaptation process.

The next strategy relates to the change management approach, particularly in shaping an organizational culture that is more open to innovation. Informants emphasized the importance of the involvement of the owner or top management in providing examples and support for technology adoption. In some case studies, change began with intensive communication about the urgency of digitization, providing space for new ideas from employees, and acknowledging adaptation efforts even though they were not perfect. This approach is proven to help reduce internal resistance and build collective enthusiasm for change.

From a technical and financial perspective, choosing the right and cost-efficient technology is another important strategy. Businesses tend to opt for digital solutions that are modular, easy-to-use and do not require large investments, such as smartphone-based cashier apps or free online selling platforms. In some cases, they take advantage of free trials before committing to long-term subscriptions. This approach is considered to help minimize risk and ensure a good fit between business needs and the technology being used.

In addition, the results also show that cooperation with external parties is a significant supporting strategy. Some respondents established partnerships with business consultants, local technology providers, and educational institutions that offer digitalization assistance. This good practice can be seen in the case study of a home-based food business that successfully built an integrated online sales system with support from the digital MSME community. The combination of training, change management, selective technology selection and external collaboration is proven to strengthen the readiness of traditional businesses to face the challenges of digital transformation and increase the chances of long-term success.

5. Linkage of Challenges and Opportunities

The results show a close relationship between the challenges and opportunities in the digital transformation process experienced by traditional businesses. On the one hand, various obstacles such as limited human resources, technological barriers, and unadaptive organizational culture are the main obstacles in utilizing digital opportunities. On the other hand, opportunities to expand markets, improve efficiency, and innovate remain wide open for businesses that are able to develop adaptive strategies. Findings from several case studies show that businesses that are able to bridge this gap generally have a high awareness of the importance of a planned and integrated transformation strategy.

An integrated strategy is key to overcoming obstacles while optimizing opportunities. This approach includes a synergy between strengthening human resource capacity, selecting technology that suits business needs, and implementing inclusive and sustainable change management. One of the good practices identified is the use of an incremental approach to technology adoption, which allows businesses to learn and adjust slowly but steadily. For example, starting from digitizing the transaction process, then continuing with online marketing, until finally developing a new business model that is entirely digital-based.

The research also shows that digital transformation is inseparable from the long-term commitment of business owners in driving change. Businesses that successfully bridge challenges and opportunities generally have proactive leadership, are open to collaboration, and are able to build a supportive ecosystem that involves employees, customers, and external

partners. Thus, the gap between obstacles and opportunities is not something that is fixed, but can be narrowed through a comprehensive, responsive, and continuous learning-oriented strategy. This awareness of interconnectedness is an important foundation in designing digital transformation that is not only adaptive, but also relevant to the local context of traditional businesses.

6. Theoretical and Practical Implications

This research makes an important theoretical contribution to the digital transformation literature, particularly in the context of traditional businesses in small and medium-sized enterprises. The findings enrich the understanding of the dynamics of digital adaptation from the perspective of business actors, which has been relatively under-explored in previous studies that focused more on large corporations or the technology industry. By uncovering the linkages between internal challenges (human resources, culture, technology) and external opportunities (digital market, efficiency, innovation), this research emphasizes the importance of a contextualized, incremental, and local-resource-based approach to digital transformation. Theoretically, this study reinforces the view that digital transformation is not only a technical issue, but also a social-organizational one that involves changing the mindset and behavior of all business elements (Mehrabi et al., 2025).

Practically, this research yields a number of recommendations that are relevant to traditional businesses and policy makers. For businesses, it is important to start digital transformation by mapping needs, resources and internal readiness. Training and digital competency development for owners and employees is a crucial first step. On the other hand, collaborative strategies such as partnerships with communities, educational institutions, or digital service providers need to be strengthened to overcome resource limitations. Meanwhile, for policymakers, the findings emphasize the need to develop digital assistance programs that are inclusive and sustainable, not only providing infrastructure, but also building digital capacity and literacy at the grassroots level. Fiscal incentive policies or subsidies for MSME digitalization are also suggested as concrete steps to encourage accelerated transformation.

Overall, the theoretical and practical implications of this research confirm that the success of digital transformation in traditional businesses is not only determined by technology adoption, but also by mental readiness, structural support, and policies that favor the micro, small, and medium enterprise sector. An integrated approach based on real needs in the field is the key to an inclusive and sustainable digital transformation.

Conclusion

Digital transformation is an important strategic step for the survival of traditional businesses in the digital era. Although faced with various challenges such as limited technology, human resources, organizational culture, and capital, traditional businesses still have great opportunities to grow through digital market utilization, process efficiency, and service innovation. The success of the transformation is highly dependent on an integrated strategy, including improving human resource competencies, selecting the right technology, and external collaboration. This research provides theoretical contributions in understanding the dynamics of digitalization in the traditional sector, as well as practical recommendations for businesses and policymakers to support an inclusive and sustainable transformation process.

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