

## Analysis Of The Effect Of Digital Transformation On Smes Around Unimed

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### ABSTRACT:

From a global viewpoint, the business climate is unpredictable and competitive due to external causes, the majority of which are technological change generators. The purpose of this study is to determine the impact of technology on SMEs in the city of Medan. The samples were gathered from small and medium-sized firms (SMEs) in the UNIMED area. With a qualitative design, this study collects data through semi-structured interviews with eight enterprises in the UNIMED area. Interviews were transcribed following data collection to identify common themes. This study highlighted themes such as "getting exposure" and "getting effective sales figures" as a result of implementing digital transformation, as expressed by six of the eight participants. The findings show that. Digital transformation has a tremendous impact on consumer interactions and the simplicity of shopping. The data also suggest that online sales and digital marketing are the most popular digital platforms, with some SMEs in UNIMED effectively implementing them. The aim of this research is to determine the influence of digital transformation on SMEs by taking a sample 8 businesses around UNIMED and how effective digital influence is on business progress. From the results obtained, digital transformation has a significant influence even though it also experiences challenges. 6 of the 8 businesses studied said that rapid technological change is also a challenge that must be taken into account and the advantage that these SMEs gain is that customers who are far away can

also reach them. The business is only digital without having to come directly to the place. Finally, the report identifies digital maintenance and rapid technological development as challenging considerations. Furthermore, the study suggests that SMEs in the neighbouring UNIMED area use more readily available digital technologies to get greater exposure.

**Keywords:** *Digital marketing, Digital transformation, SMEs, Medan Pancing (unimed)*

## INTRODUCTION

Digital transformation (DT) is currently a fundamental method for enhancing business efficiency and competitiveness, with government regulations and industry associations encouraging widespread implementation of the technology. On the other hand, SMEs, the economy's backbone, suffer a number of obstacles, including inadequate capital, a lack of understanding of digital, and limited access to funding, all of which impede optimal adoption of digital technology. According to Law No. 20 of 2008, SMEs are productive economic units that operate independently, are not associated with large corporations, and play a vital role in sustaining the local economy, despite the fact that they are frequently inhibited in implementing digitalization. Digitalization and digital transformation are two connected but distinct ideas; digitalization merely covers the translation of data from analogue to digital format, whilst digital transformation involves Digital technology has resulted in major changes to company structures and operational operations. This transformation enables SMEs to expand their markets, improve operational efficiency, and develop stronger customer relationships. However, internal difficulties such as low digital skills and external challenges such as insufficient infrastructure frequently impede its implementation. The purpose of this study is to investigate the implementation of digital transformation in SMEs near Medan State University (UNIMED), identify the problems encountered, and assess the impact on company performance. Using a qualitative method, eight SME owners or representatives from the UNIMED area were interviewed to learn about their experiences with digitalization and its impact on business operations. It is hoped that these findings would provide light on how SMEs might use digital transformation to boost technological competitiveness.

## LITERATURE REVIEW

Digital transformation (DT) entails implementing disruptive technologies to boost productivity, value creation, and social welfare. Many national governments, multilateral organizations, and industry associations have conducted strategic-foresight studies to inform their long-term DT strategies; these bodies hope to attain the goals outlined in Table 1. DT is expected to experience strong annual growth and rapid penetration. However, there are impediments to its spread, such as insufficient or extremely diverse firm structures or cultures, a lack of DT strategies and ROI (return on investment) visibility, and even the notion of cannibalization by current enterprises. External hurdles include a lack of appreciation of how DT can benefit society as a whole, a paucity of skills and a competent labour force, a lack or insufficient infrastructure, there is a lack of regulation and consumer protection, as well as limited financial options, particularly for small and medium-sized firms. (Ebert & Duarte, 2018)

### 1.1. Definition of SMEs

According to the Organization for Economic Cooperation and Development (OECD), small and medium-sized enterprises represent regional economic trends as well as social and cultural factors. These distinct trends are clearly represented in the various definitions and SME requirements established by foreign countries. While some classify SMEs based on the number of employees, others utilize cash invested. Others use other figures for the number of employees, capital invested, income, and business. Despite differences in comparison definitions of SMEs, firms share several basic traits, the most prominent of which is that ownership and management are shared by one person / family, making judgments more discretionary. Second, SMEs need a limited capital basis, regardless of the industry or country in which they are headquartered. Nonetheless, companies are struggling to obtain development funding, forcing them to rely significantly on personal resources.

Third, the controlling director rarely divides their own money from the company's finances, which contributes significantly to the inefficiency of many SMEs. Most SMEs use labor-intensive technologies. Consider it more difficult to transition from one product line to something completely different; in reality, most SMEs associate their goals more strongly with the product line than with other concerns like capital usage. Other topics discussed in most SMEs include capital usage. Most SMEs have less organizational diversity, higher staff turnover rates, and a higher labour investment ratio. Eventually, the cost of business is strong, most likely owing to cheap capital expenses, lack of business-live collaboration with the agent, lack of market expert other factors.

In Article 1 of Law No. 20/2008 concerning Micro, Small, and Medium Enterprises, it is stated that: (a) A small business is a productive economic business that stands alone and is carried out by individuals or business entities that are not subsidiaries or branch companies that are owned, controlled, or become a part either directly or indirectly of Medium Enterprises or Large Enterprises that meet the Business criteria Small as referred to in this act. (b) Medium Business is a productive economic business that stands alone and is carried out by individuals or business entities that are not subsidiaries or branch companies that are owned, controlled, or become a part, either directly or indirectly, of a Small Business or Large Business with a net worth or annual sales In Article 1 of Law No. 20/2008 concerning Micro, Small, and Medium Enterprises, it is stated that: (a) A small business is a productive economic business that stands alone and is carried out by individuals or business entities that are not subsidiaries or branch companies that are owned, controlled, or become a part either directly or indirectly of Medium Enterprises or Large Enterprises that meet the Business criteria Small as referred to in this act. (b) Medium Business is a productive economic business that stands alone and is carried out by individuals or business entities that are not subsidiaries or branch companies that are owned, controlled, or become a part, either directly or indirectly, of a Small Business or Large Business with a net worth or annual sales (Iriyanto, et al., 2021)

## 1.2. Digital Technologies and Transformation

Digitalization is defined as "the use of digital technology and data to generate revenue, increase business, replace/change business processes, and create a digital business environment, where digital information is primarily concerned." Digitalization has been identified as one of the major trends that will shape society and business in the years ahead. Service digitization will dominate most areas of the industry in the near future, propelling the company manufacturing into the fourth Industrial Revolution. Digital transformation is defined as a technological change that results in a company's business model, product, or organisational structure. Digital transformation necessitates both technology and people. In recent years, scholarly attention, especially in information systems literature, has increased due to considerable improvements in dealing with varied technologies and organizational aspects of digital transformation. Digital transformation is the result of multiple digital innovations created by actors or players involved, as well as structures, practices, values, and beliefs that change, threaten, replace, or supplement the game rules that exist in the organization, ecosystem, industry, or other domains.

According to the definition above, digitalization and digital transformation are two distinct ideas, despite the fact that they both include the use of digital technology. Digitalization is the process of transferring information from analogue to digital format. This could entail converting physical documents into digital files, recording data in digital format, or shooting photos and videos with a digital camera. Digitalization refers to greater electronic data processing and can be considered the initial step in adopting digital technology. Meanwhile, digital transformation refers to a major change in how businesses or organizations use digital technology. This entails incorporating digital technology into any area of a business or organization, such as changes to business models, operating processes, and customer experiences. Digital transformation is more than just processing digital data; it also involves changing the way the business performs as a whole. Digitalization focuses on data processing electronics, whereas digital transformation involves a fundamental shift in the way a business or organization runs by integrating digital technology. According to Swen Nadkarni, et.al. (2020) digital transformation has two dimensions: technology and actors, which are further classified into nine major categories. Deep digital transformation technology matters must take into account downstream consumers, technological capabilities, interfaces (user interfaces) and stakeholders, chain speed distribution, market share, and government policies. Meanwhile, digital transformation requires actors to focus on various factors, including transformative leadership, solid managerial abilities, a supportive company culture, and a positive work environment. (Putra, et al., 2023)

## METHODOLOGY

This study focused on analyzing the use of digital transformation among selected SMEs in the UNIMED area. SMEs in this vicinity had equal chances of being chosen as research samples due to their similar approaches to management and representation. Data were gathered from selected SMEs around UNIMED, which served as representatives for the overall population.

The research drew information from SME owners or representatives, who play critical roles as both observers of business challenges and initiators of change. They possess valuable insights into the implementation and impact of digital transformation in their operations. For this study, eight SME owners or representatives from decentralized SMEs within the UNIMED area were selected. Interviews were conducted with these owners or representatives to understand their experiences with digital transformation in their businesses, focusing on common management practices within their organizations. The interviews involved asking identical questions to each SME representative, but at different times. These interviews, which followed a general approach, served as a primary tool for data collection in this study.

## Results

The relationship between research objectives, research questions and findings will be shown in tables 1 and 2. Table 1 shows the relationship between objectives, questions and findings from the research which will be presented in themes.

Table 2 shows date from respondents, whit percentages according to each research finding theme.

Table 1. Lingking of research objectives, questions, and findings.

Research purposes	Research questions	Findings/ themes
Digital transformation used	What digital tools are used for business?	Instagram, WhatsApp, Grab mark, Qris, Facebook, Shopee, and Tokopedia.
Effectiveness of using digital transformation for SMEs	How effective is digital transformation in the business environment?	Sales figures increase and make it easier for customers to access shops/ businesses.
The impact of digital transformation on SMEs	How does digital technology affect business in the market?	Make it easier to promote your business.
Challenge factors for digital transformationa in SMEs	What are the challenges experienced in implementing digital transformation?	Competitors, epidly changing technology, and customers who do not take the goods they ordered.

Table 2 Responses rate percentage on findings/ themes

Respondens	Findings/ themes	frequency	% persentage
8	Seles figures increase	6	75%
	Make it easier for custumers to access shop/business		
8	Make it easier to promote your business	5	62.5%
8	Competitors,	6	75%
	rapidly changinng tecnology		

	Customers who do not take the goods they ordered		
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Key to used shord words:

- BE1 – TOKO TWINS ANGEL
- BE2 – WARUNG AYAM PENYET KK IKE
- BE3 – DANIA BUKET
- BE4 – NURAYA SAYUR
- BE5 – GLOBAL KUPIE
- BE6 – QIYARA KICHEN
- BE7 – SIDARAH SEMBAKO
- BE8 – SAYUR LENA

This study revealed that digital transformation has a significant impact on modern SMEs. A majority of respondents (75%) reported that digital transformation has positively changed their business operations, especially in terms of promotions through social media, which have increased consumer awareness. For instance, BE1 and others noted that they now attract customers from broader regions—not just near UNIMED, but even beyond Medan Pancing—thanks to digital technology, which has been a boost to their business by motivating them to expand. Similarly, BE2 highlighted that digital integration in their business has brought substantial benefits in terms of marketing and exposure, boosting income and customer service, facilitating sales, and increasing overall sales volume. Respondents indicated that they have observed increased sales and are able to connect with distant customers since adopting digital transformation.

These responses generally reflect the positive outlook of SMEs that have adopted digital transformation and embrace the emerging digital age. Most respondents agreed on the effectiveness of digital transformation, with BE4, BE7, and BE8 specifically mentioning an increase in customers as a result of its implementation, though they noted the need for ongoing improvements to optimize its full potential.

In terms of digital transformation's effect on customer relationships, this study found that technology enhances customer interactions within SMEs. Most respondents (75%) indicated that digital platforms eliminate the need for customers to visit stores in person, enabling them to order products online from the comfort of their homes. Respondents mentioned that technology enables them to target specific customer segments likely to purchase, as customers can now browse products via websites or applications, creating an advantage in advertising.

Respondents, including BE1, BE4, BE6, and BE7, shared similar insights, observing that customers no longer need to physically visit their stores, as digital platforms allow them to view available products online. BE5 and BE8 noted that digital transformation enhances advertising and positively affects sales turnover, as customers often arrive knowing exactly what they want, having previously viewed products through digital advertisements.

BE2 and BE3 also emphasized that digital advertising facilitates market segmentation, a sentiment echoed by other SMEs in the study, who consistently agreed that digital transformation positively impacts advertising.

The study found that most SMEs have implemented digital marketing and online sales tools. For example, BE1 uses Tokopedia for advertising and online sales, BE2 leverages Gofood and WhatsApp for orders and deliveries, BE3 utilizes Instagram for product promotion, BE4 relies on Grabmark for advertising and orders, BE5 employs Qris for convenient payment and Instagram for advertising, BE6 uses WhatsApp for repeat orders and Facebook for promotion, BE7 uses Grabmark and Shopee for advertising and order delivery, and BE8 relies on Grabmark for both advertising and ordering.

This data highlights common trends in digital tool adoption among SMEs. The most frequently implemented features are online advertising and sales, which most respondents have adopted. These insights suggest that digital marketing is widely implemented among SMEs around UNIMED, though literature suggests there are additional digital features that could further enhance business growth.

### **3.1. Challenging Factors of Digital Transformation in SMEs**

This study shows that factors like digital upkeep and the fast pace of technological change are the main challenges SMEs face with digital transformation. A majority of participants (75%) indicated that these issues affect their digital operations. BE1 and other respondents mentioned that securing the right workforce to manage their social media and websites is a recurring difficulty. As technology evolves, more processes are shifting to the cloud, which is convenient, given that nearly everyone now has a smartphone with internet access. However, some respondents noted that internet connectivity can be unreliable at times. Additionally, business owners need to stay updated on the latest application developments and economic trends, as there are always new advancements. Respondents stated that keeping up with technology is costly, especially as digital tools are advancing rapidly. Technology, as an external force, drives businesses to adopt new working models to stay competitive, which requires budget allocations.

While digital platforms have proven effective and beneficial for business growth, they also come with challenges. Evidence collected indicates that digital maintenance and constant changes are the primary obstacles in digital transformation. Respondents' shared experiences confirm that this is a significant concern for many SMEs. For instance, BE4 and BE7 both mentioned the challenges they face with website maintenance, while BE8 noted issues with customers who place orders but fail to pick them up, even after the items are prepared. BE1 and other respondents expressed concerns over the need to frequently adapt to new digital features to retain their competitive edge, which, as BE2 noted, can be an expensive endeavor.

## **Discussion**

The findings of this study show that SMEs around UNIMED recognize the positive impact of digital transformation, viewing it as a boost to their sales performance. Many SMEs see the effectiveness of digital transformation in their operations, despite certain challenges. Overall, this suggests that when applied effectively,

digital transformation can be highly beneficial. However, the data also indicates that, although SMEs in the UNIMED area have adopted some digital transformation practices, they need to further expand their use to stay competitive on a global scale. While some SMEs have incorporated digital changes, their business models still reveal inefficiencies compared to newer digital tools that could be utilized.

This study empirically connects the variables of SMEs and digital transformation to assess the latter's influence on SME growth and operations. Findings indicate that digital transformation affects SMEs in multiple ways and has the potential to drive their development in this era. Research respondents supported this, showing enthusiasm for the evolution of digital technologies. These results align with the objectives of this study by highlighting key factors that demonstrate the impact of digital transformation on SMEs. Future research could further assess how widely digital transformation is adopted among SMEs around UNIMED, perhaps by examining the average rate of successful implementation among them.

## RECOMMENDATIONS

Based on the study's findings, several recommendations are proposed to enhance digital transformation in SMEs going forward. These suggestions include "expanding the use of digital transformation" and "utilizing additional digital channels" for improvement. Firstly, to gain a competitive edge in the market, each SME should continue to adopt new business practices by implementing a robust digital transformation strategy. SMEs that have already taken steps in digital transformation should deepen their use of digital tools to boost visibility and foster better customer relationships. The findings reveal that SMEs have so far focused on online sales, social media marketing, and web design, yet there are many other impactful digital marketing techniques they could explore, such as app development, video production, email marketing, and content marketing. These additional techniques could significantly broaden their market reach and accelerate growth. Furthermore, SMEs are encouraged to not only increase online sales efforts but also study successful digital technology implementations in other countries for potential insights.

Secondly, it is advised that SMEs around UNIMED diversify their use of digital channels to enhance customer engagement and thereby increase business visibility and sales turnover. Beyond the digital channels already in place, there are other potential channels worth exploring for further growth. These include branding, social media marketing, content and web marketing, as well as video marketing, influencer partnerships, and pay-per-click advertising. Leveraging these channels can provide SMEs with substantial opportunities for improving financial performance and gaining a competitive edge, even in comparison to larger businesses.

## CONCLUSION

This study focuses on examining the impact of digital transformation (DT) implementation within SMEs in the Medan area, specifically through case studies around UNIMED. The research seeks to evaluate the effectiveness of DT, its impact, the current level of adoption, and challenges encountered by SMEs in integrating DT. This research considers two key variables: DT and SMEs. An in-depth examination of these variables was conducted, and findings were drawn accordingly. The relationship between these factors reveals that DT is essential for SME growth in the current market. When compared to theoretical insights from the literature, the

findings confirm that DT is highly beneficial in today's business landscape. SMEs that have embraced DT reported notable advantages from its adoption, despite some challenges they encountered.

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