

The Impact of Digital Transformation on Business Models and Competitive Advantage

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ABSTRACT

Digital transformation has become a dominant trend in the business world in recent years. The rapid development of information and communication technology has enabled organisations to change the way they operate, interact with customers, and compete in the market. This research aims to analyse the impact of digital transformation on business models and competitive advantage. This research is a literature review that uses a qualitative approach, which implies that data will be analysed and interpreted using information and text obtained from various sources. The study results show that in the ongoing era of digital transformation, its impact on business models and competitive advantage is an aspect that cannot be ignored. This digital transformation has changed the fundamentals of how organisations operate and interact with customers, and how they can win the competition in an increasingly fierce market. Digital transformation has brought about a significant business paradigm shift. Today, more organisations are integrating digital technology as an integral part of their business model. It is no longer an option, but a necessity to maintain relevance and competitiveness in the market.

ABSTRAK

Transformasi digital telah menjadi tren dominan dalam dunia bisnis pada beberapa tahun terakhir. Perkembangan teknologi informasi dan komunikasi yang pesat telah memungkinkan organisasi untuk mengubah cara mereka beroperasi, berinteraksi dengan pelanggan, dan bersaing di pasar. Penelitian ini bertujuan untuk menganalisis dampak transformasi digital pada model bisnis dan keunggulan kompetitif. Penelitian ini merupakan sebuah literatur review yang menggunakan pendekatan kualitatif, yang mengimplikasikan bahwa data akan dianalisis dan diinterpretasikan dengan menggunakan informasi dan teks yang diperoleh dari berbagai sumber. Hasil studi menunjukkan bahwa dalam era transformasi digital yang tengah berlangsung, dampaknya terhadap model bisnis dan keunggulan kompetitif merupakan aspek yang tidak dapat diabaikan. Transformasi digital ini telah merubah dasar-dasar cara organisasi beroperasi dan berinteraksi dengan pelanggan, serta bagaimana mereka dapat memenangkan persaingan di pasar yang semakin sengit. Transformasi digital telah membawa perubahan paradigma bisnis yang signifikan. Kini, lebih banyak organisasi yang mengintegrasikan teknologi digital sebagai bagian integral dari model bisnis mereka. Hal ini tidak lagi sekadar menjadi pilihan, melainkan suatu keharusan untuk menjaga relevansi dan daya saing di pasar.

1. INTRODUCTION

In recent years, the phenomenon of digital transformation has risen to prominence within the realm of business. This transformative process has been greatly facilitated by the swift and remarkable progress witnessed in the fields of information technology and communication. These advancements have, in turn, empowered organizations to undergo profound changes in the fundamental fabric of their operations, customer interactions, and competitive strategies within the market landscape. It is imperative to recognize that digital transformation is no longer merely an option; rather, it has evolved into an indispensable prerequisite. It stands

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as a pivotal determinant in the cultivation of sustainable business models and the attainment of a distinct competitive edge in the contemporary digital epoch (Geissdoerfer et al., 2018). Within the scope of this investigation, the primary objective is to delve into a comprehensive exploration of the far-reaching effects engendered by digital transformation upon the intricate domains of an organization's business model and its competitive advantages.

The advent of digital transformation represents a watershed moment in the business environment, precipitating a tectonic shift away from traditional models towards those that are markedly technology-centric (Mahardhani, 2023; Verhoef et al., 2021). Enterprises that skillfully navigate the terrain of digital transformation are poised to harvest a multitude of advantages. These encompass the augmentation of operational efficiency, the substantial curtailment of production costs, and the swift expeditiousness in bringing products or services to market. It is worth noting that, in select cases, digital transformation has the capacity to serve as the catalyst for profound and sweeping transformations that redefine the very essence of how business is conducted.

Digital transformation has opened up new avenues for organizations to forge closer connections with their customers (Masoud & Basahel, 2023). Leveraging social media, mobile applications, and various digital platforms, businesses can delve into the intricacies of customer preferences, gather instantaneous feedback, and deliver highly personalized services (Ausat, 2023; Azzaakiyyah, 2023; Sundaram, 2017). This capability serves to fortify customer relationships and lays the groundwork for burgeoning business growth opportunities. Through these digital touchpoints, organizations not only gain valuable insights into their customers' needs but also foster an environment where customer engagement and loyalty flourish, ultimately driving the expansion and diversification of their business endeavors.

Competitive advantage in the digital era is often intricately tied to an organization's ability to swiftly and effectively embrace new technologies (Faraj & Leonardi, 2022). Businesses that excel in seamlessly integrating cutting-edge technology into their business models stand poised to capture market share more rapidly than their competitors (Perifanis & Kitsios, 2023; Suherlan, 2023). This advantage extends beyond the products or services offered; it encompasses the manner in which businesses operate, including the establishment of more efficient and flexible internal processes. In this context, competitive advantage is not solely a product of innovation but also stems from the transformation of operational paradigms, enabling organizations to navigate the evolving digital landscape with agility and foresight.

Digital transformation has also exerted a profound influence on consumer behavior. Modern consumers exhibit a penchant for seeking product or service information online, engaging in price comparisons, and perusing reviews before arriving at purchase decisions (Chen et al., 2022; Rijal, 2023; Sari, 2023). Consequently, businesses must astutely acknowledge these shifting consumer dynamics and recalibrate their marketing strategies to remain pertinent in this evolving landscape. Recognizing that consumers now possess unprecedented access to information and have come to expect seamless digital interactions, enterprises must not only adapt but also anticipate these preferences, thus ensuring the continued resonance and effectiveness of their marketing endeavors.

While digital transformation undoubtedly presents a plethora of benefits, it is accompanied by a multifaceted array of challenges and associated risks. Among these challenges, we find the imperative concerns of data security, safeguarding customer privacy, and navigating the ever-evolving landscape of technological uncertainty. It is imperative for organizations to proactively strategize and implement measures to effectively mitigate and address these risks as they embark on their journey of embracing digital transformation.

By comprehending the impact of digital transformation on business models and competitive advantages, organizations can develop superior strategies to confront these changes. This research will delve deeper into how companies across diverse industries have integrated digital technology into their business models, its implications on competitive advantages, and effective strategies for addressing the associated challenges and risks. Consequently, this study will provide invaluable insights for organizations seeking to remain relevant and competitive in this digital era.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Digital Transformation

Digital transformation refers to the fundamental changes in how organizations or businesses use digital technology to alter the way they operate, interact with customers, and achieve their goals (Kraus et al., 2022). It

is a strategic effort to leverage modern information and communication technology to enhance efficiency, innovation, and overall performance of an entity, be it a company, government, or non-profit organization (Ohara, 2023; Zeng et al., 2020). Here are some key points that elucidate the concept of digital transformation:

1. **Adoption of Digital Technology:** Digital transformation involves the adoption of digital technologies such as cloud computing, big data, artificial intelligence, the Internet of Things (IoT), data analytics, and various modern applications and software. Organizations typically leverage these technologies to improve business processes, collect and analyze data, and enhance customer services.
2. **Change in Business Processes:** Digital transformation often necessitates a change in traditional business processes. Organizations need to revise or even replace old processes with more efficient, automated, and technology-integrated ones. This can involve automating routine tasks, using data analytics for decision-making, or establishing more efficient supply chains.
3. **Customer Experience:** Digital transformation often focuses on enhancing the customer experience. Organizations strive to provide services that are more personalized, fast, and easily accessible through digital platforms like websites, mobile apps, and social media. The use of customer data and behavioral analysis becomes crucial in achieving this goal.
4. **Innovation and Flexibility:** Digital transformation drives innovation in products, services, and business models. Successful organizations in digital transformation are often more flexible in adopting changes and mastering new technologies. They can also collaborate with business partners or external parties to create more innovative solutions.
5. **Security and Privacy:** In the effort to harness digital technology, organizations must also pay attention to data security and customer privacy issues. Data protection and compliance with relevant regulations become essential parts of digital transformation.
6. **Change Management:** Digital transformation often involves a cultural shift within an organization, where employees need to adapt to new technologies and new ways of operating. Effective change management becomes key to the success of this transformation.

Digital transformation is not merely about adopting technology but also about changing perspectives and ways of thinking in running a business. Organizations that successfully undergo digital transformation can gain a competitive advantage, improve efficiency, and stay at the forefront of ongoing changes in the business and technology landscape.

Business Model

A business model is a framework that describes how an organization plans to create, deliver, and capture value from the products or services they offer to customers or stakeholders (Peric et al., 2017). The business model explains how a company generates revenue, allocates resources, and conducts its business operations (Kusumasari, 2015). It is a way to understand how an entity creates value and sustains its business activities over time. Here are some key elements that encompass the concept of a business model:

1. **Customer Value:** The business model defines the value offered to customers or stakeholders. This can include physical products, services, or a combination of both. The business model should explain how this value meets the needs or solves the problems of customers.
2. **Revenue Streams:** The business model outlines the sources of revenue for the company. This can come from direct sales of products or services, subscriptions, advertising, licensing, or other revenue sources.
3. **Cost Structure:** The business model also includes the cost structure required to operate the business. This encompasses production costs, operational expenses, marketing costs, distribution costs, and more. Determining the cost structure is vital for understanding business profitability.
4. **Resources and Partnerships:** The business model can involve the resources needed, such as workforce, technology, physical assets, and other resources. It may also encompass partnerships or collaborations with other organizations to expand reach or enhance value.
5. **Distribution Channels:** How products or services are delivered to customers is an essential part of the business model. This includes physical distribution, digital distribution, and marketing strategies.
6. **Competitive Advantage:** The business model should consider how the company will maintain a competitive edge. This can involve competitive pricing, product innovation, unique customer experiences, or other factors that differentiate the company from competitors.

7. **Adaptation of Value:** The business model should also describe how the company plans to continuously adapt and evolve over time. This may involve changes in product strategy, target markets, or technology adoption.

Business models can vary significantly depending on the type of business, industry, and the company's objectives. It serves as a powerful tool for planning, managing, and measuring business performance. By understanding the business model thoroughly, companies can identify growth opportunities, address challenges, and optimize how they create and extract value in an ever-changing business environment.

Competitive Advantage

Competitive advantage refers to the unique attributes, strategies, or assets that an organization or business possesses, enabling them to outperform competitors in a specific market (Farida & Setiawan, 2022). It is what makes a company more efficient, effective, or attractive to customers compared to its rivals. Competitive advantage is a key factor in achieving and sustaining a strong position in a competitive marketplace (Arjang et al., 2023; Saputra et al., 2023). Here are some key points that illuminate the concept of competitive advantage:

1. **Uniqueness and Distinctiveness:** Competitive advantage must create a tangible difference between a company and its competitors. This difference can be in the form of unique products, innovative technology, efficient processes, or exceptional customer service.
2. **Sustainability:** A strong competitive advantage is one that can be sustained over the long term. It should not be easily replicated or surpassed by competitors. Strategies or assets that are difficult to imitate or substitute contribute to sustainability.
3. **Value Creation for Customers:** Competitive advantage should not only benefit the company internally but also provide added value to customers. This could involve better products, competitive pricing, faster delivery, or superior customer experiences.
4. **Enhanced Profitability:** Competitive advantage should enable a company to achieve higher revenues or lower costs, resulting in improved profitability. It can involve setting higher prices or reducing production costs, leading to better profit margins.
5. **Identifiability and Understanding:** Competitive advantage should be identifiable and easily understood by customers, stakeholders, and even employees. It helps build a strong brand image and communicates the value offered by the company.
6. **External and Internal Factors:** Competitive advantage can stem from external factors like market conditions, regulations, or resources, as well as internal factors such as technology, expertise, or strategic positioning.
7. **Market Dynamics:** Competitive advantage needs to adapt to changing market dynamics, customer preferences, and competitive pressures. Continuously evolving strategies and capabilities are important.

Competitive advantage plays a pivotal role in distinguishing successful companies from others. It can drive growth, market share, and profitability, making it a central concept in business strategy. Organizations must regularly assess their competitive advantage, adapt to market changes, and invest in strategies or assets that strengthen their competitive position. In essence, competitive advantage is a cornerstone of sustained success in the business world.

3. RESEARCH METHOD

This research constitutes a comprehensive qualitative literature review that aims to systematically aggregate, assess, and synthesize the extant body of knowledge pertaining to the impact of digital transformation on business models and competitive advantages. The data acquisition process encompasses a wide array of sources, including scholarly journals, books, official documents, and articles, spanning the timeframe from 2000 to 2023. By employing a qualitative methodology, we endeavor to elucidate intricate subjects, consider multiple perspectives, and discern recurring patterns within the literature. The qualitative approach adopted in this study affords us the opportunity to delve deeply into the subject matter, thereby facilitating a nuanced understanding of the multifaceted dimensions of digital transformation's effects on businesses and their competitive edge. Furthermore, this method allows us to critically assess the credibility and reliability of the various information sources under scrutiny. It is worth noting that, like any research, this study has its inherent limitations, which we duly acknowledge and address in our analysis. Ultimately, the overarching objective of this research is to furnish a comprehensive and holistic overview of the literature on the impact

of digital transformation on business models and competitive advantages. Moreover, we aim to provide valuable insights and recommendations that can inform and guide future research endeavors in this dynamic and evolving field of study.

4. DATA ANALYSIS AND DISCUSSION

Digital transformation is a significant change that has completely reshaped the landscape of modern business. With this transformation, companies undergo a profound shift in various aspects of their operations, their interactions with customers, and their competition in the market. In this deeper analysis, we will elaborate on how this digital transformation has had a tremendous impact on the business models of companies and how it has created significant competitive advantages for them.

At the initial stage, it is essential for us to gain a deeper understanding of the concept of digital transformation itself. Digital transformation can be defined as a series of processes in which organizations embrace digital technology with the goal of fundamentally changing their business models, redesigning their operational processes, and delivering superior experiences to customers (Stalmachova et al., 2021). It should be emphasized that digital transformation is not solely about adopting new technologies but also about integrating them comprehensively and effectively into all layers and strategic perspectives of the company. In other words, it is a holistic change that involves shifts in the corporate culture (Sutrisno, 2023), governance, and long-term strategies to achieve better business goals in this digital era.

One of the primary implications that arise from digital transformation is the extraordinary potential for innovation in various aspects of products and services. Companies have the opportunity to develop products and services that are more suitable and relevant to customer needs by leveraging the latest technologies (Pascucci et al., 2023). For example, through the development of Internet of Things (IoT)-based products, which enable everyday objects to be digitally connected and provide valuable data for analysis, companies can improve efficiency, security, and convenience. Additionally, through the launch of innovative mobile applications, companies can enhance their interactions and engagement with customers, create deeper and more personalized experiences, and improve customer retention. All of this opens the door to new opportunities for business growth. By innovating in their products and services, companies can expand their market share, attract new customers, and retain existing ones (Reguia, 2014). This can also lead to increased competitiveness and the company's position in the market, as companies that can quickly adapt to technological changes and customer demands will have a clear advantage in the ever-changing digital era. Thus, digital transformation is not only about following trends but also about creating new opportunities that can drive long-term growth and success for companies.

In addition to the positive impacts mentioned earlier, digital transformation also brings significant benefits in terms of optimizing business processes. By implementing automation in various operations, companies can achieve various strategically important advantages. One of them is the reduction of operational costs, as reducing human involvement in routine tasks allows companies to save labor costs and eliminate the risk of human errors. Beyond just efficiency, optimizing business processes through digital transformation also creates greater accuracy (Pereira et al., 2022). Automation systems tend to have higher levels of consistency and accuracy than human hands, reducing the chances of errors in business processes. This has important implications in maintaining the reliability and quality of products or services offered to customers. Furthermore, optimizing business processes through digital transformation gives companies an extraordinary ability to respond to market changes faster and more accurately. With real-time data collection and analysis, companies can identify market trends, changes in customer behavior, and opportunities or challenges that may arise more quickly. This allows them to take appropriate and adaptive actions, which can be a key difference in maintaining competitiveness and business growth in the dynamic business environment of today. In other words, digital transformation is not just about internal efficiency but also about the company's ability to innovate and respond quickly to ongoing external changes (Vial, 2019).

Another important dimension in the context of digital transformation is the increased focus on customers and the user experience they encounter. Digital transformation enables companies to gain a deeper understanding of customer preferences, needs, and expectations through the use of sophisticated data analytics (Huseynov, 2021). Data obtained from various sources, such as online interactions, transaction records, customer feedback, and more, provide valuable insights into customer behavior (Wibowo et al., 2020). With this deeper understanding, companies can design better strategies to provide more personalized and satisfying experiences for each customer. This involves delivering products or services that are more in line with

each customer's preferences, tailoring promotional offers based on purchase history, and providing more responsive customer service. Additionally, the use of technologies like artificial intelligence (AI) can enhance a company's ability to provide relevant recommendations and quick solutions to customers (Haleem et al., 2022). The positive impact of an increased focus on customers and user experience extends beyond customer satisfaction; it also involves building strong loyalty (Rane et al., 2023). When customers feel acknowledged, understood, and provided with services that meet their needs, they tend to remain loyal to the company. This translates into higher long-term returns through increased customer retention and positive recommendations shared with others. In other words, digital transformation not only changes how companies operate but also how they interact and build sustainable relationships with their customers in this challenging digital era.

In the era of digital transformation, we also witness significant developments in the evolution of business models, particularly with the growth of subscription-based business models. This model has become increasingly adopted by many companies that previously relied on one-time sales. This change is a response to the constantly changing market dynamics, where customers tend to seek ongoing experiences rather than one-time purchases. Subscription-based business models allow companies to create a more stable and sustainable revenue stream (Lindström et al., 2023). Unlike single sales where revenue is only obtained when customers make a purchase, subscription models enable companies to earn regular revenue, typically on a monthly or annual basis, from customers who subscribe to their products or services. This not only enhances revenue predictability but also provides companies with the opportunity to build stronger relationships with customers over time. Furthermore, subscription-based business models positively impact customer retention. Subscribing customers tend to be more committed to the company because they have an interest in regularly using the services or products they pay for. By maintaining high customer satisfaction levels and continually improving service or product quality, companies can strengthen customer loyalty and reduce churn rates (subscription cancellations) (Jiang & Zhang, 2016). Additionally, subscription-based business models often open up opportunities for greater personalization. With continually updated customer data, companies can tailor recommendations, offers, and customer experiences more accurately, which can increase customer value over time. So, digital transformation has played a significant role in the shift towards subscription-based business models, bringing substantial benefits in terms of sustainable revenue and stronger customer retention for companies.

Digital transformation opens the door for companies to explore much broader and deeper market expansion opportunities (Ausat et al., 2023; Gadzali et al., 2023; Sudirjo et al., 2023). Through the use of powerful online platforms, companies now have easier and faster access to the global market, unrestricted by geographical barriers that may have existed in the past. This provides unlimited opportunities for companies to sell their products and services worldwide and expand their market reach. In the digital era, companies can leverage various strategies to explore the global market. This includes approaches like e-commerce, where products can be sold online to customers in different countries, as well as international market penetration through partnerships or acquisitions of local businesses (Ausat & Suherlan, 2021; Purnomo, 2023). Furthermore, the use of social media and digital advertising allows companies to reach a global audience at relatively low costs. One significant advantage of global market expansion is revenue diversification. By operating in different markets, companies can reduce risks associated with economic fluctuations or changing trends in specific markets (Zahra et al., 2000). This can also contribute to overall company growth, as global markets often have greater growth potential than saturated local markets. However, it's important to note that global market expansion also comes with its own challenges, such as facing more intense competition, cultural differences, varying regulations, and more. Therefore, companies need to have a well-thought-out strategy and a good understanding of the market they intend to enter before embarking on global expansion. In the overall context, digital transformation is not just about gaining access to global markets, but also about how companies effectively manage it and leverage its potential for long-term growth and success.

Competitive advantage arising from digital transformation is more than just success in product and service differentiation. It involves a company's ability to create products and services that are not only unique but also highly relevant with the help of digital technology, which in turn allows the company to differentiate itself from competitors significantly.

First and foremost, product and service differentiation through digital transformation enables companies to respond accurately to various customer needs and preferences. By integrating technologies such as artificial intelligence and advanced data analytics, companies can produce products and services that align

more closely with individual customer desires (Sjödin et al., 2021). This creates a deeper and more satisfying experience for customers, which tends to foster stronger and sustainable bonds with the company's brand. Furthermore, this competitive advantage also encompasses continuous product innovation. Leveraging digital technology, companies can swiftly identify new market trends, explore innovation opportunities, and launch new products that meet the evolving market needs (Hoffman et al., 2022). This innovation not only adds value for customers but also keeps the company in a superior position in a constantly changing market. Additionally, differentiation through digital transformation can also occur through more personalized and responsive customer services. With a deeper understanding of customer preferences through data, companies can provide more focused support and faster solutions in addressing customer issues. This results in a superior customer experience, which often becomes a key factor in choosing one brand over another. In the overall context, the competitive advantage generated by digital transformation is not only about creating different products and services compared to competitors but also about building closer and meaningful relationships with customers, sustaining innovation, and delivering exceptional customer experiences. When all these elements are combined effectively, they can make a company a strong and sustainable market leader in this digital era (Karneli, 2023).

In addition to the mentioned competitive advantages, the ability to respond quickly to market changes is also a crucial element in the era of digital transformation. Companies that successfully execute digital transformation are not only capable of adapting to market changes but also become active agents of change by following and responding to fluctuating consumer trends and market changes (Sudirjo, 2023). The importance of rapid responsiveness is further reinforced by a company's ability to utilize real-time data analytics (Mikalef et al., 2020). With sophisticated data analytics tools, companies can continuously monitor the market and gather real-time data on customer behavior, buying trends, and changing consumer needs. This provides a deeper understanding of what is happening in the current market and what may happen in the future. With this improved understanding, companies can take faster and more accurate actions in responding to market changes. This includes adjusting business strategies more flexibly, allowing the company to align their product or service offerings more accurately with changing market demands (Sreenivasan & Suresh, 2023). Companies can also design responsive marketing campaigns that capitalize on current trends and enhance customer engagement. Furthermore, companies can use data analytics to identify new opportunities that may emerge in the market or to detect potential threats that could affect their business. In this way, rapid responsiveness is not only about adapting to existing changes but also about seizing opportunities at the right time. In the overall context, rapid responsiveness to market changes is one of the key elements in achieving a competitive advantage in the era of digital transformation. Companies that can gather, analyze, and respond to data in real-time will have a significant advantage in maintaining relevance, competitiveness, and business growth in today's dynamic business environment.

Operational cost reduction is another equally important factor in creating a competitive advantage through digital transformation (Shehadeh et al., 2023). Digital transformation is not just about increasing revenue but also about achieving better operational efficiency (Ausat et al., 2022). Companies that can optimize their business processes with the help of digital technology can significantly reduce operational costs, which, in turn, can lead to increased profit margins and provide a strong competitive edge in pricing. Why is operational cost reduction so important? Because it enables companies to offer products or services at more competitive prices, which can be a strong attraction for customers. Companies that can produce products or services that are equivalent or even better with lower production costs can capture market share, reduce competition, and gain more customers. Digital transformation can encompass various efforts to reduce operational costs, such as automating repetitive processes, using algorithms and artificial intelligence to optimize supply chains, and implementing more efficient management systems. Furthermore, digital technology also allows companies to reduce overhead costs, such as physical office expenses, by enabling remote work or shared infrastructure (Plekhanov et al., 2022). But operational cost reduction is not just about cutting expenditures. It also involves increasing the productivity and efficiency of existing resources. By removing unnecessary barriers and processes, companies can focus their resources on more productive activities, such as product innovation or better customer service. In the broader context, operational cost reduction through digital transformation not only impacts the company itself but can also contribute to a broader business ecosystem. Operationally efficient companies can create a positive impact in their supply chains and provide benefits to their customers with more competitive pricing (Handoyo et al., 2023). This is one way in which

digital transformation can help strengthen a company's position in the market and create a sustainable competitive advantage.

Customer personalization is a crucial aspect that can significantly enhance a company's competitive advantage in the digital transformation era. The ability to deeply understand customer preferences, needs, and desires, and then provide highly customized experiences, can help build unmatched customer loyalty, which, in turn, can outperform competitors significantly.

In the context of personalization, companies have access to various tools and technologies that can assist them in gathering and analyzing customer data more effectively (Chandra et al., 2022). This includes customer behavior data, product preferences, transaction history, and even customer feedback. All this information can be used to build a deeper understanding of who their customers are and what they are seeking. Then, based on this understanding, companies can design personalization strategies that blend the most relevant products and services with the needs of each customer. This may include product recommendations, special offers based on purchase history, or even customization of the user interface and customer experience on their websites or applications. Personalization creates more meaningful and satisfying customer experiences (Tyrväinen et al., 2020). Furthermore, customer personalization also has a positive impact on customer retention. When customers feel acknowledged and given special attention, they are more likely to remain loyal to the brand. This reduces churn rates and increases how often they interact with the company, which can, in turn, enhance customer lifetime value. In the context of intensifying competition, customer personalization can be a differentiating factor for companies. Companies that can deliver highly customized customer experiences and meet individual needs can build a strong reputation and gain a sustainable competitive advantage. Therefore, in the era of digital transformation, customer personalization is not just an additional strategy but has become a necessity for companies looking to remain relevant and compete effectively.

Organizational flexibility is one critical component in dealing with the dynamics of change, both from external and internal factors. Digital transformation is not just about adopting new technologies but also about creating a strong foundation to enhance the organization's flexibility (Martínez-Peláez et al., 2023). Companies that have successfully implemented digital transformation have a much greater ability to adapt their business models to changes happening around them. When we talk about organizational flexibility in the context of digital transformation, it encompasses several key aspects. First and foremost, companies that adopt digital technology typically have more adaptive technology infrastructure. This means they can integrate new technologies into their operations more quickly and easily adjust their business systems and processes to changing needs. Furthermore, an organizational culture that supports change and innovation is also a crucial part of flexibility (Aboramadan et al., 2019). Companies that encourage employees to seek new solutions, collaborate across functions, and take risks in creating change will be better prepared to face unexpected changes. Such a culture creates an environment where change is seen as an opportunity, not a threat. Additionally, the ability to gather and analyze data effectively is also a key element in organizational flexibility. Data can provide valuable insights into changing market trends, customer behavior, and internal company performance (Bilro et al., 2023). With a deeper understanding, companies can respond to changes more rapidly and accurately. Organizational flexibility also includes the ability to respond to changes in regulations, competition, and economic challenges. Flexible companies have contingency plans and strategies that they can activate when needed, enabling them to adapt in uncertain situations. In the overall context, organizational flexibility is a crucial foundation for successfully implementing digital transformation. It allows companies to remain responsive and relevant in the face of both external and internal changes. This flexibility creates a valuable competitive advantage in the ever-changing and dynamic business world.

While digital transformation brings various benefits, it cannot be denied that there are some challenges that need to be addressed. One of the major challenges that is becoming increasingly urgent is the issue of cybersecurity (Alawida et al., 2022). This has become a critical concern as more data is generated, stored, and used in the context of digital transformation. Protecting data, both customer and company data, has become crucial and requires serious attention. In an era where companies collect and manage a growing amount of data, the risks of cybersecurity are on the rise. Cyber threats such as hacking, malware, and data breaches have become more sophisticated and often difficult to detect (Cremer et al., 2022). Customer data stored by companies, including personal information and financial transactions, is a highly attractive target for cybercriminals (Hermansyah, 2023; Salamah, 2023; Sukenti, 2023). To address this challenge, companies need to adopt comprehensive cybersecurity strategies. This includes measures such as data encryption, continuous security monitoring, and employee training on best security practices. Additionally, it is essential to

ensure compliance with data protection regulations, such as GDPR in Europe or data privacy laws in various countries. Furthermore, companies need to implement effective risk management and emergency response plans in the event of a cybersecurity breach. This includes designing procedures for handling cyberattacks, recovering lost data, and notifying customers if their data is at risk. While cybersecurity is one of the major challenges in digital transformation, it can also be an opportunity for companies to build trust with customers (Saeed et al., 2023). When customers know that their data is secure and well-protected, they are more likely to remain loyal to the brand. Overall, digital transformation brings a number of challenges that need to be addressed, with cybersecurity being one of the most pressing. With the right approach, companies can mitigate these risks and ensure that customer and company data remains secure in this increasingly complex digital era (Wanof, 2023).

Human resource capability is a crucial and strategic factor in achieving success in digital transformation. Digital transformation is not just about technology but also about the people who leverage it. Therefore, companies must invest in the development of their employees to ensure that they have adequate digital skills to keep up with evolving technology. In the context of digital transformation, human resource capability includes several key aspects. First and foremost, it involves a strong understanding of digital technology and how to apply it across various aspects of company operations. Employees need to understand concepts such as data analytics, artificial intelligence, the Internet of Things (IoT), and more. They also need to know how these technologies can be used to optimize business processes, improve product or service quality, and enhance customer interactions. Furthermore, adaptability is also highly important. The world of technology is constantly evolving, and employees need to have the ability to learn and adapt to new technologies as they emerge (Cascio & Montealegre, 2016). This requires an open attitude towards change, as well as the ability to continuously learn and develop new skills throughout their careers. In addition to technical skills, the ability to collaborate and communicate in an increasingly digitally integrated work environment is also crucial. Effective and collaborative teams can optimize the benefits of digital technology within a company (Camarinha-Matos et al., 2019). Furthermore, companies need to have a strong employee development plan. This includes regular training, digital skill development programs, as well as recognition and rewards for those who excel in implementing digital technology. In the context of digital transformation, employees are not only key players but also vital agents of change. They have the potential to drive positive change within the company if given proper training and resources. Therefore, effective human resource management is a crucial step in achieving successful digital transformation. With a skilled, committed, and adaptable team, companies can overcome challenges and leverage the opportunities offered by this ever-changing digital era (Vuchkovski et al., 2023).

Lastly, it's important to realize that digital transformation requires significant initial investments in technology infrastructure and training to achieve sustainable success. Digital transformation is not a step that can be taken hastily without careful preparedness and the necessary sacrifices. Therefore, companies need to be aware of the importance of commitment in terms of resources, time, and budget. Investment in technology infrastructure is a key element of digital transformation. This includes hardware, software, platforms, and cloud infrastructure required to support new applications and systems. Reliable and scalable infrastructure is needed to ensure that the company can efficiently manage data, run complex applications, and operate optimally in a digital environment. Additionally, investment in employee training is also crucial. Digital transformation often changes the roles and responsibilities of employees, so the right training is necessary to ensure that they have the skills and knowledge required to operate in the new digital environment (Cetindamar Kozanoglu & Abedin, 2021). This includes training in the use of new tools, development of data analysis skills, and understanding of cybersecurity. It's important to note that these initial investments should not only be seen as costs but also as long-term returns on investment. With a strong technology infrastructure and skilled employees, companies can reduce operational costs, improve efficiency, and create greater growth opportunities. Furthermore, digital transformation can change how companies operate and interact with customers, potentially affecting the entire business model. Therefore, companies must have a clear vision of the long-term goals and benefits of digital transformation and develop a comprehensive strategy to achieve them. In the overall context, substantial initial investments in technology infrastructure and training are essential components of the digital transformation journey. These are necessary investments to create a strong foundation for the company in facing an increasingly digital future. With mature preparedness and strong commitment, companies can successfully execute digital transformation and achieve sustainable competitive advantages in this evolving digital era (Rêgo et al., 2022).

As an incredibly inspiring case study, Amazon is a concrete example of a company that has achieved extraordinary success through continuous digital transformation. Starting its journey as an online store, Amazon has grown and evolved into a vast and highly complex digital ecosystem that encompasses e-commerce services, cloud computing, order fulfillment, and even entertainment streaming services. Amazon's success in digital transformation has given the company a tremendous competitive advantage, which has influenced and transformed the global business landscape.

First and foremost, Amazon leveraged digital transformation by changing the way people shop. By focusing on customer convenience and delivering a unique shopping experience, Amazon successfully created an e-commerce platform that dominates the market. They integrated advanced technologies, such as data-driven product recommendations and efficient payment processes, to enhance customer engagement and provide an unparalleled shopping experience. Furthermore, Amazon Web Services (AWS), Amazon's cloud computing business, has become a leader in the cloud industry. AWS provides the technological infrastructure needed by many companies worldwide to run their applications and services efficiently and securely. This not only created an additional revenue source for Amazon but also enables companies across various sectors to accelerate technological innovation. Sophisticated and efficient order fulfillment is another aspect of Amazon's success in digital transformation. They integrated automated technology and advanced logistics to deliver products quickly and accurately to customers worldwide. This allows Amazon to fulfill its promise of fast and reliable delivery, which is one of the key factors in retaining and attracting customers. Moreover, through Amazon Prime Video streaming services, Amazon entered the digital entertainment world. They produce exclusive content, offer TV and movie streaming, and create a comprehensive entertainment ecosystem that supports their Prime membership. This is an example of how a company can leverage digital transformation to diversify its business portfolio.

Amazon's success in digital transformation is an example of how a company can transform from being a small online store to becoming one of the dominant players in various digital industries. It demonstrates that with the right vision, strong commitment, and the ability to adapt quickly to change, companies can achieve significant competitive advantages in this era of digital transformation. Amazon has led the way in realizing the full potential of the digital revolution and using it to achieve unparalleled success.

In conclusion, it is essential to recognize that digital transformation is not merely an incremental change but a revolution that has fundamentally altered how companies operate and compete in the market. In this context, we can conclude that digital transformation is a phenomenon that has woven the business landscape with threads of technology, creating a masterpiece that yields competitive advantages across various industries. The competitive advantages resulting from digital transformation include the ability to respond quickly and accurately to market changes, create more relevant products and services that cater to customer preferences, optimize business processes by reducing costs and improving efficiency, build strong customer loyalty through personalization, and even explore global market expansion opportunities more easily. Companies that understand the importance of integrating digital technology into their business strategies and are willing to invest in the necessary infrastructure, training, and organizational culture changes will have a solid foundation for facing challenges and competing in this ever-changing and evolving business world. Now, digital transformation is not just an option but a necessity for companies that want to remain relevant and succeed in an increasingly competitive business environment. Therefore, companies must be prepared to move forward, explore the potential of digital technology, and pursue innovations that have a positive impact on achieving their business goals. Digital transformation is a step towards a future that benefits not only individual companies but also drives innovation, growth, and progress in the business world as a whole.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

In the ongoing era of digital transformation, its impact on business models and competitive advantage is an aspect that cannot be ignored. This digital transformation has fundamentally altered how organizations operate, interact with customers, and compete in an increasingly competitive market. It has brought about a significant shift in the paradigm of business. Today, more organizations integrate digital technology as an integral part of their business models. This is no longer just an option but a necessity to maintain relevance and competitiveness in the market. One of the most noticeable impacts of digital transformation is the improvement in operational efficiency. Organizations that successfully adopt digital technology can enhance

their operational efficiency, reduce production costs, and consequently gain a competitive advantage, particularly in terms of cost. Furthermore, digital transformation has enabled closer interactions with customers through digital platforms. This enables organizations to better understand customer needs and provide more personalized services. The data collected from these interactions help organizations continuously improve their products or services, ultimately supporting competitive advantage.

Innovation becomes the key to maintaining and expanding competitive advantage in the digital era. Organizations that can integrate the latest technology and create innovative solutions are more likely to succeed in the market and create new opportunities. Additionally, significant changes in consumer behavior have occurred. Modern consumers tend to search for product information online, compare prices, and read reviews before making purchasing decisions. This compels businesses to establish a strong digital presence and effective digital marketing strategies to remain relevant. However, in the journey of digital transformation, there are challenges that must be wisely addressed. Data security and customer privacy are complex issues that require serious attention. Moreover, the intense competition in the business world necessitates that organizations continuously adapt and innovate to achieve and maintain competitive advantage.

The implication is that organizations must be proactive in adopting digital technology, innovate continuously, and prioritize closer interactions with customers. They must also develop a strong strategy for managing data security and comply with relevant regulations. To successfully face digital transformation, organizations need to invest in educating and training their employees to understand and master digital technology. Focus on enhancing the customer experience through effective digital marketing strategies and personalized services can help build customer loyalty. A culture of continuous innovation and readiness to respond quickly to market changes are also key factors.

Nevertheless, there are limitations that need to be acknowledged. Organizations with limited resources may face challenges in fully adopting digital technology. Furthermore, changing the organizational culture to support digital transformation can be a challenging task. The rapidly evolving world of technology brings about uncertainty, and organizations must be prepared to confront it. Data security is a complex and continuously evolving issue that demands constant attention. Finally, in a highly competitive business environment, not all organizations may succeed in achieving competitive advantage through digital transformation. By understanding the impact, implications, and following relevant advice, organizations can better prepare to face the challenges and opportunities that come with digital transformation and maintain their competitive advantage in an ever-changing business environment. Digital transformation is an ongoing journey, and successful organizations will continue to innovate and adapt to the ongoing changes in the business and technology landscape.

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