

Business Management in the Digital Transformation Era: Effective Strategies for Achieving Competitive Advantage

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ABSTRACT

Modern management thought has evolved significantly due to numerous scientific and intellectual contributions, propelling advancements in the field of management. In its contemporary sense, management involves the effective utilization of available resources to achieve organizational goals, guided by a set of prevailing modern strategies. Therefore, it's essential that strategies be periodically evaluated and adapted to changes in the external environment. Consequently, the study of business strategies and competitive advantage is one of the most critical areas in business administration, given its direct impact on organizational success and sustainability. In today's rapidly changing business world, effective strategies and a competitive advantage are vital for the survival and growth of companies. These are enhanced through adaptation to shifts in markets, technologies, and consumer trends, providing valuable insights for decision-makers to make better strategic choices. Business strategies and competitive advantage are two fundamental concepts in the field of management, closely linked to organizational success and sustainability.

Keywords: Management, Business strategies, Competitive advantage, Decision, Value creation, Digital transformation

INTRODUCTION

Today, the world is witnessing an unprecedented digital transformation, fundamentally changing the way organizations operate across various sectors. Digital transformation is no longer just an option but has become an imperative for organizations seeking to survive and compete in this rapidly evolving digital age. This new environment requires innovative and effective business management strategies (Jordão and Novas, 2017) that align with rapid technological changes and meet evolving customer expectations. This research aims to explore and analyze effective business management (Morgan and Berthon, 2008) strategies in the digital transformation era, with a focus on how to achieve sustainable competitive advantage. We will highlight the challenges and opportunities facing organizations in this era, and provide a comprehensive framework (Porter, 2017) of strategies that can help them adapt and succeed. In light of the rapid changes the business world (Bel, 2018) is witnessing because of digital transformation, companies

face significant challenges in maintaining their competitiveness. To explore how companies can adapt traditional business management strategies to leverage the opportunities offered by digital transformation (Nemlioglu and Mallick, 2017), and to identify the various effective strategies that companies can adopt to achieve a sustainable competitive advantage in the digital age, we will address various fundamental concepts within their theoretical framework (Hewitt and Van Rensburg, 2020).

Digital Transformation in the Business World: (Kraus and Durst 2022)

Digital transformation is a comprehensive process that involves integrating digital technologies into all aspects of business, leading to radical changes in how organizations operate and deliver value to customers. It includes the use of technologies (Zhu and Westphal 2021) such as:

- *Artificial Intelligence*: to automate processes, analyze data, and make decisions.
- *Big Data*: to collect and analyze massive amounts of data and extract valuable insights.
- *Cloud Computing*: to store and access data from anywhere and at any time.
- *Internet of Things*: to connect devices and objects to the internet and collect data from them.
- *Blockchain Technology*: to enhance transparency and security in transactions.

The Importance of Digital Transformation in Business Management

Digital transformation is no longer just an option, but has become an imperative for organizations seeking to survive and compete in this rapidly evolving digital age. This new environment demands innovative and effective business management strategies that align with rapid technological changes and meet evolving customer expectations. To achieve this, the following elements must be realized: (Todeschini and Cortimiglia, 2017).

- Improving Efficiency and Productivity
- Enhancing Customer Experience
- Fostering Innovation.

The Impact of Digital Technologies on Various Aspects of Business Management

The following tables explain the impact of digital technologies, such as artificial intelligence, big data, and cloud computing, on various aspects of business management (production, marketing, human resources and finance) (Jordão and Novas, 2017).

Production

Table 1: Explains the impact of digital technologies, such as artificial intelligence, big data, and cloud computing on production.

	Artificial Intelligence	Big Data	Cloud Computing	Internet
Production	Used to automate production processes and improve efficiency and quality. Enables the prediction of equipment failures and preventive maintenance. Helps improve inventory management and reduce costs.	Enables the collection and analysis of production data to improve processes and reduce waste. Helps improve supply chain management and demand forecasting.	Enables the remote management of production processes and real-time performance monitoring. Helps improve collaboration between production teams and suppliers.	Enables the connection of devices and equipment in factories to collect data and improve efficiency. Helps track the movement of raw materials and products in the supply chain.

Marketing

Table 2: Explains the impact of digital technologies, such as artificial intelligence, big data, and cloud computing on marketing.

	Artificial Intelligence	Big Data	Cloud Computing	Internet
Marketing	Used to analyze consumer behavior and provide personalized marketing experiences. Enables the automation of marketing campaigns and improves customer targeting. Helps create innovative and engaging marketing content.	Enables the collection and analysis of massive amounts of data to understand market trends and customer preferences. Helps improve marketing strategies and identify the most effective channels. Enables the measurement of marketing campaign performance and improves return on investment.	Enables the efficient and effective storage and management of marketing data. Helps provide integrated marketing experiences across various digital channels.	Enables the collection of data on customer interaction with products and services in the real world. Helps provide interactive and innovative marketing experiences.

Human Resources

Table 3: Explains the impact of digital technologies, such as artificial intelligence, big data, and cloud computing on human resources.

	Artificial Intelligence	Big Data	Cloud Computing	Internet
Human Resources	Used to automate recruitment, training, and performance evaluation processes. Enables the analysis of employee data to identify training needs and improve performance. Helps improve employee experience and increase job satisfaction.	Enables the analysis of employee data to identify trends and problems and provide effective solutions. Helps improve talent management and identify high-performing employees.	Enables the management of employee data and the provision of human resources services online. Helps improve communication and collaboration between human resources teams and employees.	Enables the tracking of employee attendance and performance in workplaces. Helps improve the work environment and increase safety.

Finance

Table 4: Explains the impact of digital technologies, such as artificial intelligence, big data, and cloud computing on finance.

	Artificial Intelligence	Big Data	Cloud Computing	Internet
Finance	Used to automate accounting and financial auditing processes. Enables the analysis of financial data to predict trends and make better investment decisions. Helps improve financial risk management and detect fraud.	Used to automate accounting and financial auditing processes. Enables the analysis of financial data to predict trends and make better investment decisions. Helps improve financial risk management and detect fraud.	Enables the management of financial data and the provision of financial services online. Helps improve collaboration between finance teams and investors.	Can be used in the process of tracking equipment that companies own, and tracking its financial condition.

How to Achieve Competitive Advantage in the Digital Age

In the digital age, competitive advantage is of paramount importance for companies seeking to survive and grow. There is clarification of the importance of competitive advantage in this era: (Sohl and Vroom, 2020).

- **Continuous Innovation:** Developing new products and services that meet changing customer needs.

- **Exceptional Customer Experience:** Providing personalized and seamless experiences across all digital channels.
- **Investment in Digital Technologies:** Adopting new technologies that enhance efficiency and productivity.
- **Data Analysis:** Using data to understand customers and make better strategic decisions.
- **Building a Digital Culture:** Encouraging employees to adopt digital technologies and innovate (Kumar and Sureka, 2021).

How Companies Adapt Their Operations and Business Models (Onufrey and Bergek, 2022)

Adapting Internal Processes: Companies are streamlining internal operations by automating tasks with AI and robotics, optimizing supply chains through IoT and data analytics for tracking and demand prediction, and enhancing collaboration using digital platforms for communication and project management (process automation, improving supply, chain management, enhancing collaboration.).

Adapting Business Models: Businesses are transforming their models by moving towards service offerings, developing digital platforms to connect users, and participating in the sharing economy to optimize resource utilization (shift from products to services, platform-based business models, sharing economy.).

Adaptation Strategies: To adapt effectively, companies must foster a culture of innovation, invest strategically in digital technologies, prioritize employee skill development, enhance customer experiences across digital platforms, and maintain flexibility to respond to market and technological shifts (Adopting a Culture of Innovation, Investing in Digital Technologies, Developing Employee Skills, Focusing on Customer Experience, Flexibility and Adaptation.) (Gonzalez and Milasi, 2019).

Companies That Have Successfully Adapted

- **Netflix:** Transformed from a DVD rental company to a leading digital streaming platform.
- **Amazon:** Started as an online bookstore, and then expanded to become the largest e-commerce platform in the world.
- **Uber:** Changed the concept of transportation by creating a platform that connects riders and drivers.

Challenges Facing Companies in the Digital Transformation Process

Digital transformation requires companies to face multiple challenges and risks. (Hewitt and Van Rensburg, 2020). Companies must plan carefully and implement effective strategies to overcome these challenges and risks and achieve success in the digital age. The most important of these challenges: (Chrisman and Chua, 2005).

Table 5: Explains the challenges facing companies in the digital transformation process.

Technical Challenges	Organizational Challenges	Financial Challenges	Customer-Related Challenges
Legacy Systems Integration- Cybersecurity- Data Management	Resistance to Change-Changing Organizational Culture-Skills Development	High Costs	Changing Customer Expectations- Maintaining Customer Loyalty

Risks Facing Companies in the Digital Transformation Process (Krüger and Meyer, 2021)

- *Loss of Competitive Advantage:* If companies do not adapt to digital transformation, they may lose their competitive advantage and fall behind competitors.
- *Disruption of Traditional Business Models:* Digital transformation may disrupt traditional business models, requiring companies to innovate new business models.
- *Cybersecurity Risks:* Increased cyber breaches, ransomware attacks, and phishing (Latifah and Setiawan, 2020).

Most Effective Digital Strategies in Building a Sustainable Competitive Advantage:

Digital innovation strategies are essential for companies seeking to achieve success in the digital age (Teece, 2018). By adopting effective strategies, companies can create innovative products and services, improve internal processes, and achieve a competitive advantage. Competitive advantage requires companies to adopt innovative and flexible strategies that align with rapid market changes and constantly changing customer expectations (Bel, 2018).

Digital Transformation Strategies and the Effectiveness of Competitive Advantage

Digital Innovation Strategies: Developing new digital products and services, and improving processes through digital technologies. (Héraud, 2021) Digital innovation (Haryati and Yasri, 2021) strategies are a set of methods and plans aimed at using digital technologies to create new products and services, or improve existing products and services, or improve the company's internal processes (Teece, 2018).



Figure 1: The importance of digital innovation strategies in companies.

Digital Customer Experience Strategies: Improving the customer experience through digital channels, and providing personalized services. Digital customer experience strategies are a set of plans and actions aimed at improving the customer experience across all digital channels, and providing personalized services that meet their needs and expectations (Teece, 2018).

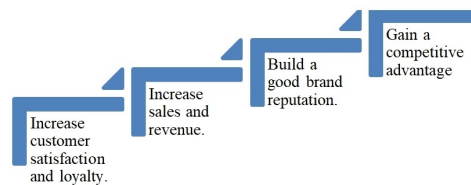


Figure 2: The importance of digital customer experience strategies in companies.

Digital Marketing Strategies: Using social media, content marketing, and email marketing to reach customers. Digital marketing strategies (Balocco and Cavallo, 2019) are a set of plans and methods that use digital channels and technologies to reach and interact with customers, (Exposito and Sanchis-Llopis, 2018) build strong relationships with them, and achieve marketing goals (Teece, 2018).

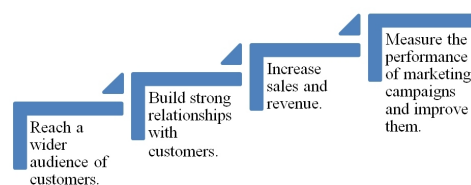


Figure 3: The importance of digital marketing strategies in companies.

Data Management Strategies: Collecting and analyzing data to make better strategic decisions. Data management strategies are a set of plans, processes, and technologies aimed at collecting data from various sources, storing, organizing, and analyzing it, and using it to make better strategic decisions.

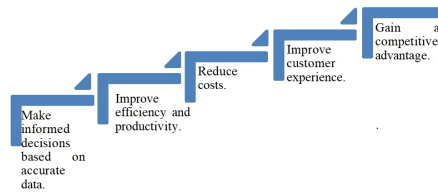


Figure 4: The importance of data management strategies in companies.

Digital Collaboration Strategies: Digital collaboration strategies are a set of plans and methods that use digital tools and technologies to enhance collaboration and communication between employees and partners, and improve productivity and efficiency. Digital collaboration strategies helps companies: improve communication and collaboration between employees and partners.

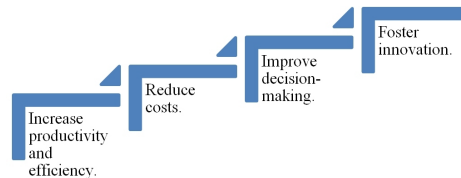


Figure 5: The importance of digital collaboration strategies in companies.

Theoretical Framework for Various Basic Concepts

Theories of Competitive Advantage: We can present the most important theories that have contributed to the development of competitive advantage: (Héraud, 2021).

1. **Resource-Based View:** This theory focuses on the idea that sustainable competitive advantage stems from the unique resources and capabilities possessed by an organization. These resources include physical, human, and organizational assets, as well as capabilities that allow the organization to achieve superior performance. so resources and capabilities must be valuable, rare, difficult to imitate, and non-substitutable to achieve a sustainable competitive advantage.
2. **Porter's Five Forces Model:** This model analyzes the competitive environment of an organization through five forces: the threat of new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitutes, and the intensity of rivalry among existing competitors. It helps organizations understand industry dynamics and identify competitive positions from which they can achieve an advantage.
3. **Value Chain Analysis:** This theory divides the organization's activities into primary and support activities, and analyzes how each activity contributes to creating value for the customer. It helps organizations

identify sources of competitive advantage by improving efficiency and effectiveness in each activity (Porter, 2006).

Theories of Innovation

1. **Disruptive Innovation Theory:** This theory describes how small and emerging companies can challenge large incumbent companies by offering simpler and cheaper products or services, and disruptive innovations often begin in niche markets before moving into mainstream markets.
2. **Open Innovation Theory:** This theory encourages organizations to collaborate with external sources of innovation, such as customers, suppliers, and universities, and open innovation helps organizations accelerate the innovation process and reduce costs.
3. **Innovation Life Cycle Theory:** This theory describes the stages that innovation goes through, from creation to growth, maturity, and decline. It helps organizations understand how to manage innovation at different stages (Porter, 2006).

Theories of Change Management

1. **Lewin's Change Model:** This model divides the change process into three stages: unfreezing, changing, and refreezing. It helps organizations manage change in an organized and effective manner.
2. **Kotter's 8-Step Change Model:** This model presents eight steps to successfully manage change, starting with creating a sense of urgency and ending with anchoring the change in the organization's culture and helps organizations avoid common mistakes that lead to change failure.
3. **Organizational Development Theory:** This theory focuses on improving organizational effectiveness through planned interventions aimed at changing behaviors, values, and beliefs. Organizational development is a comprehensive approach to change management that focuses on participation and collaboration (Porter, 2006).

Developing a Theoretical Framework That Links Digital Transformation, Business Management Strategies, and Competitive Advantage

Theories that address various concepts can be developed thanks to a number of factors, the most important of which are: (Héraud, 2021).

4. **Defining Vision and Objectives:** Institutions must define a clear vision for digital transformation and specific, measurable objectives.
5. **Developing an Integrated Digital Strategy:** Institutions must develop an integrated digital strategy that includes all aspects of the business and aligns with overall strategic objectives.
6. **Building Digital Capabilities:** Institutions must invest in building digital capabilities, including developing employees' digital skills, updating digital infrastructure, and developing digital systems and processes.

7. **Change Management:** Institutions must manage change effectively, communicate with employees and customers, and provide the necessary support and training.
8. **Performance Measurement and Continuous Improvement:** Institutions must continuously measure the performance of digital transformation, identify strengths and weaknesses, and take necessary corrective actions.

CONCLUSION

Digital transformation represents the driving force behind the development of business management strategies, as it compels companies to adopt new technologies and redesign their processes. Through these strategies, companies can enhance customer experience and increase efficiency, leading to a sustainable competitive advantage in the digital age. The relationship between digital transformation, business management strategies, and competitive advantage is an integrated one. Digital transformation provides the tools and technologies necessary to implement business management strategies, and these strategies, in turn, help companies achieve a competitive advantage in the digital age and optimally exploit available opportunities. Therefore, companies must embrace digital transformation as an essential part of their business management strategies and focus on developing innovative and effective strategies that leverage digital technologies to achieve a competitive advantage (Cao and Duan, 2015). This is because digital transformation is not merely an option, but an imperative for companies seeking to survive and grow in the digital age.

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