

# Digital Transformation and Evolution of Business Models

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**Abstract:** *Digital transformations are one of the basic ways that, in modern business environments, enable organizations to effectively adapt to new business conditions, through the digitization of their business models. Within the framework of digital business transformation, an overly complex set of activities is performed, which aim to ensure efficient adaptation of organizations to changes that occur in the markets in which they operate. The changes that are taking place within the digital transformation projects have resulted in substantial paradigm shifts in the ways of conducting business and executing processes in organizations. Digital transformation encompasses all business segments of organizations, their strategies, business models, organizational structures, and the activities they carry out. This paper presents the effects of successfully and unsuccessfully implemented digital transformations of Blockbuster and Netflix companies, and the consequences that these companies' digitalization approach had on their businesses. Furthermore, emphasis was placed on identifying the errors that led to Blockbuster's closure and the positive elements that ensured Netflix's success.*

**Keywords:** *Digital transformation, Business models, Netflix, Blockbuster*

## 1. INTRODUCTION

Developments in the fields of information technology and telecommunications have resulted in the emergence of many digital technologies, which have enabled organizations to implement significant improvements in their businesses [1]. These technologies have also led to significant changes in the environments in which organizations conduct their businesses, of which the most significant are changes in consumer behavior. Digitalization has enabled consumers to perform active, two-way communication with organizations and to be

actively involved in the business processes that take place in them. Thanks to the development of digital technologies and the changes they have led to, consumers can actively dictate market trends, demanding products and services that are tailored to their needs and desires [2].

This rapid development of digital technologies has led to changes with an exceptionally large impact on the business and organizations. Digital transformation of business processes and all other business segments is imperative for all organizations that want to secure long-term sustainable competitive positions in modern markets [3]. The term "digital business transformation" encompasses all changes that result in substantial changes in the ways of doing business processes in organizations [4]. The main goal of digital transformation is reflected in the creation of preconditions for efficient adaptation of organizations to changes in the market and the use of these changes as a source of competitive advantage.

A common mistake, which is present in many companies, is reflected in the too-narrow understanding of the concept of digital transformation, which results in the exclusive coverage of its technical and technological segments [5]. Digital transformation must include all business segments of organizations and all business processes that take place in them. The maximum positive effects of digital transformation cannot be achieved without changes in organizational cultures and structures, emphasis on human resources, and placing consumers at the center of the business of organizations [6].

Digitization of business models, by applying digital transformation to business processes, is aimed at the integration of all business processes that are recognized in the organization, into a single entity. Efficient and adequately implemented digital transformation leads to complete changes in business models of organizations [7]. The application of digital transformation aims to ensure that the

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organization makes the most of modern digital technologies to improve its business and to create partnerships with its customers and with all other categories of stakeholders, which directly or indirectly affect their businesses [8].

## 2. LITERATURE REVIEW

### 2.1 Digital Transformation of Businesses

Digital transformation has a significant impact on all sectors and activities within organizations, and it represents a necessity in modern business conditions [9]. It often forces organizations to implement significant changes in their business models, which in many cases can result in a complete change of all business processes, which in certain situations can result in changing the main activities of the organization [10]. The inability of organizations to implement digital transformation and adapt to new market demands can result in the complete closure of their business activities [11].

The fast development of information and telecommunication technologies is the most significant factor that influenced the emergence of the need for digital business transformation [12]. This development has affected all segments of life for societies, leading to major changes in the lifestyles of individuals and to changes in the business environments in which organizations conduct their business [13]. Modern business environments are characterized by continuous and very rapid changes that set the imperative to change the business processes before organizations, which take place in them and require their adaptation to the requirements of the environment. Traditional business models in modern business conditions cannot provide long-term sustainable competitiveness of organizations, which is why they must implement the digital transformation in their business models.

The basic element of digital business transformation is the complete use of digital technologies in all business processes that are recognized and defined [14]. Digital transformation is often mistaken for the digitalization of the core business. The term digital transformation defines activities that lead to substantial changes in the ways of executing business processes, managing organizational structures, organization strategies, and business models.

The term digital business transformation refers to business processes that are based on changing organizational structures of companies, aimed at increasing the level of their openness to

the environment and the implementation of innovative business models, which must ensure rapid and efficient adaptation to changes in their working environments [15]. Digital transformation is a process of a rapid and comprehensive transformation of all business segments within organizations, in order to create preconditions for more efficient use of the advantages that modern digital technologies enable, and adjust businesses to changes that occur in industry environments [16]. The greatest positive effects of digital business transformation are realized in situations when it encompasses all business processes that take place within organizations.

### 2.2 Digitization of Business Models

Digitization of business models must be based on a digital strategy, which is the basis for the analysis of the elements that must be included in the new business model and the activities that must be carried out when implementing changes to business models [17].

A business model can be defined as business logic, which aims to ensure the creation and retention of values for consumers and the organization itself [18]. It defines how organizations use technical platforms and architectures to create and retain value for them and their consumers [19]. Digitization can be defined as the process of collecting and preparing data for their processing and storage in digital (electronic) systems [20].

The transformation of business models is the implementation of changes within organizations that create innovations, and which result in visible changes in the way they do business. Digitization has had an extremely large impact on changes in all industries, and with some of them, such as health, banking, manufacturing, and many others, leading to significant changes in business practices [21]. These changes have resulted in the need to digitize business models that organizations use in their business, which must be based on the digital transformation of business processes that take place in them [22].

Business models are gaining in importance in modern business conditions, primarily because they have become one of the basic factors influencing the success of organizations. The importance of business models is reflected in the fact that they represent a link between the strategic and operational level of the organization [23]. With the help of the strategy, the desired position of the organization in the future and long-term sources of its competitive advantages are defined. Business models represent the means

used to realize the long-term goals of the organization. Compared to the operational level, business models provide a less detailed overview of the organization's operations, which is at the same time much more holistic [24]. The importance of business models and their digitalization, in modern business conditions, is reflected in the fact that they represent a basic element that describes how organizations create and retain value.

Digitization of business models is a consequence of the exponential growth of digital technologies and their application in business, which have led to significant improvements in many business processes. Numerous studies point to the conclusion that efficiently implemented digitalization of business models can result in sustainable competitive advantages of the organization and its superior financial performance [25]. Digitization has different influences on business models, which enable significant innovations in the ways of realizing business processes in organizations.

Organizations that primarily base their business on the application of digital business models, and the Internet and digital technologies, are significantly different from organizations that use traditional business models [26]. This fact indicates the complexity of the process of digitization of business models, within which a large number of business segments of organizations must be covered and very significant changes must be implemented in the business processes that take place in them. Digitization of business models enables significant changes in the ways organizations are doing business and their transition to models that are more collaborative [27]. After the transition to digital business models, resources and capabilities that organizations have become much more modular and can be connected and shared in a much more efficient way.

### *3. ANALYSIS OF EXAMPLES OF SUCCESSFUL AND UNSUCCESSFUL DIGITAL BUSINESS TRANSFORMATION*

The impact that digital technologies have on businesses of organizations differ greatly across industries. In certain activities, digital technologies have set an imperative for organizations to carry out a comprehensive transformation of all business processes, to adapt them to new business conditions [16]. IAs an example, in some industries, such as the rental of videotapes and DVDs, new technologies have imposed the obligation of a complete change in all segments of business and the

development of completely new, digital business models.

Due to its inability to understand the effects that the development of digital technologies had on the business in which it operated and the inadequately implemented digital transformation of its business processes, Blockbuster experienced bankruptcy. The development of digital technologies in the video and DVD publishing industry has led to extremely rapid and major changes, to which Blockbuster has failed to adapt properly. Although the company had an extremely good market position, adequate resources, and enough time to properly implement a digital transformation of its business, the company's management and its owners were not ready to adapt to changes in the environment, believing that they are only a passing trend, and will not have a significant impact on the business. The main reason for the end of Blockbuster is reflected in the fact that the owners and management did not understand the importance that the digital transformation of business has for the future of this company [28].

Blockbuster's problems began in 2000 after the company's management turned down an offer to buy Netflix, which at the time began developing its own digital video streaming platform. Unlike Blockbuster, Netflix based its business model entirely on the use of digital service sales channels. Netflix's business model was fully in line with consumers and digital requirements, as well as changes in the video rental market [29]. Blockbuster considered that it was not necessary to carry out a comprehensive digital transformation and digitalization of the business, which is why the company continued with the traditional rental of cassettes and discs in its facilities.

The mistake made by the owners and management of Blockbuster in 2000 is best illustrated by the fact that today Netflix is the world's leading company in the field of digital video broadcasting, while Blockbuster ceased operations in 2010. [30] The reason for the closure of Blockbuster was reflected in the fact that the company failed to adapt its business model to the requirements of digitalization and the changes that have taken place in the markets. Video renting was extremely popular among consumers at the turn of the 20th and 21st centuries, which is why the companies that operated in this business made high profits. Blockbuster's business was based on the use of high prices at which film cassettes and discs were sold, ranging from \$50 to \$100. This price was too high for most consumers, who,,

therefore, decided to rent films and watch them at a much less money instead of buying it.

The business model of video renting companies, such as Blockbuster, was based on the purchase of publishing rights from producers and copyright owners and on renting that was significantly cheaper than sales prices, and thus significantly more affordable to consumers [31]. This business model has long been very profitable for rental companies, which, after enough leases to pay for the initial investment, i.e. the purchase of the rights, made a profit on each subsequent lease. This way of doing business was very profitable for twenty years and the main problem in its implementation was efficient logistics, which had to ensure that each facility had an appropriate number of cassettes and disks [30].

Blockbuster largely based its business model on taking advantage of economies of scale when buying movies. Many retail outlets allowed Blockbuster to negotiate the purchase of many copies of individual titles, which is why the company had significantly lower purchase prices compared to most of its competitors. Many facilities also enabled the company to collect high-quality information from the market, based on which decisions on the purchase of films were made. The management and owners of Blockbuster were convinced that digitalization would not be able to jeopardize the company and its business model, due to the position it had in the market and the high level of consumer confidence in it.

The development of the Internet has resulted in the digitalization of the business in which Blockbuster operated. An increasing number of competitors began to appear on the market, who based their business models entirely on the use of the Internet and the complete digitalization of business. The increase in data flow on the Internet and its growing popularity increased the number of consumers opting for services of Blockbuster's digital competitors, among which Netflix was one of the largest.

The owners and management of Blockbuster, after the reduction of business volume and declining profits, became aware of the digitalization of the industry in which the company operated and the technological changes it led to. They did not adequately understand the essence of these changes, so they completely ignored them in the market, primarily those related to the wishes and needs of consumers. The company's management considered that digitalization is a temporary trend and that it is enough to wait for

consumers to return to the traditional business model, which is why they abandoned the implementation of more extensive activities of digitalization of the business model [29].

Netflix has continuously improved its business model by implementing digital transformations [32]. In this way, the company ensured that its business model was always as much as possible adapted to wishes and needs of consumers, which were basic elements of Netflix's business. Analyzing consumer reactions and requests, Netflix has included a subscription in its offer that allows users to watch many different contents on request. This service has been very well received by consumers, what has significantly contributed to strengthening Netflix' market position and weakening the position of Blockbuster and other competitors who based their business on traditional business models.

One of the main reasons for Blockbuster's closure was reflected in the fact that the business model on which its business was based was largely imposed on consumers, who did not have a choice. The traditional business model was based on penalties paid by consumers if they were late in returning movies. People who rented movies were not always sure that they would be able to watch them during the renting period, etc. Consumers did not like the business conditions, but they were forced to accept them because the only alternative, before digitalization, was to buy movies, which was significantly more expensive. The management and owners of Blockbuster were not aware of this consumer dissatisfaction or simply ignored it, realizing that they had the opportunity to force conditions that suited themselves.

The entry of Netflix and other companies that have used digital business models in the video rental market has led to changes that have completely changed the way they do business. The traditional business model, used by Blockbuster, could not adequately match digital models. Instead of starting the digital transformation of business and adapting to new market trends and consumer demands, Blockbuster implemented many risky activities, which were carried out spontaneously, without a clear plan and strategy [29].

The business model applied by Netflix and several other digital competitors have seen extremely rapid growth. The delay in implementing the digital transformation of Blockbuster enabled Netflix, together with Redbox, to achieve a dominant position in the digital market segment, which made

Blockbuster's entry into this segment significantly more difficult. During the first decade of the 21st century, Blockbuster focused on the introduction of new services in the traditional business model and on spontaneous acquisitions, which proved to be unprofitable [30]. The main reason for Blockbuster's failure was reflected in the fact that the company, during this period, never tried to carry out the digital transformation of its core business segment. It was not until the end of the first decade of the 21st century that Blockbuster digitally transformed its business, offering users services that were almost identical to Netflix's services. This digital transformation was too late and failed to save Blockbuster from bankruptcy.

Netflix is now the world's largest streaming company, which at the end of 2019 had about 183 million subscribers in more than 190 countries. A key element of Netflix's success has been reflected in the emphasis on tracking consumer demands and needs. The technical and technological solutions used by Netflix, from the very beginning of its business, were ways to meet consumer demands, which were central to all of the company's digital business models and which were the drivers of all the digital transformations it undertook [32].

The main advantage of Netflix is reflected in the fact that this company has always used digital models from the very beginning of its business. The very idea of starting a company best illustrates the fact how traditional models of the videocassette and DVD renting were sources of user dissatisfaction. Netflix was founded in 1997 by two programmers, Marc Randolph, and Reed Hastings, who got the initial idea to create the service after Hastings had to pay Blockbuster a \$40 fine for forgetting to return a DVD. They launched a website in April 1998, which was based on the method of payment for a rented film, and in September they introduced the possibility of paying a monthly rental subscription. Netflix very quickly switched to a monthly subscription billing system, which was well accepted by consumers. The monthly subscription system has made it possible to eliminate most of the elements that have caused consumer dissatisfaction in the traditional way of renting, such as thinking about the dates when cassettes or discs must be returned, late fees, and the like.

The fact that Netflix has based its business from the outset on the use of digital technologies, has by all means significantly facilitated the company's implementation of digital transformations. Extremely great success of Netflix is primarily a result of closely monitoring

consumer demands and the implementation of digital business transformations in all situations where the need arose. Netflix has undergone two major transformations during its operations, which have fundamentally changed the way the company operates, and which have led to a significant strengthening of its market position and to a growth of revenue it generates.

The first significant digital transformation of Netflix's business processes and overall business was reflected in the abandonment of sending DVDs by mail and moving to stream video content over the Internet. This transformation has completely changed the way the entire video publishing business functions. The streaming of video content introduced by Netflix has greatly facilitated the use of services for users, primarily due to the fact that they did not have to go for CDs or order them, but could watch movies and other content at any time, in a very easy way. The transition to video streaming required a complete transformation of Netflix's business and a shift to a fundamentally different way of providing services, which was completely revolutionary at the time and which completely changed the industry over time.

Another significant digital transformation in Netflix' business was the decision to start creating its own, original programs that would be offered to subscribers. This transformation aimed to eliminate Netflix's dependence on content providers while providing a range of different types of content that will only be available on the Netflix platform and that will retain existing and attract new subscribers. Creating its own content led to an entry of Netflix into a completely new business, in which the company had not been engaged in and it was the thing that represented an element that significantly strengthened its position in the market. Starting to create their own content has resulted in changes to existing and the introduction of several new business processes, as well as substantial changes in Netflix' business model.

From the very beginning of its business, Netflix focused on streaming content, while DVD publishing was a transitional phase until the speed of the Internet became adequate for streaming and / or downloading video content [32]. This decision points to the fact that the founders of the company strategically thought about the directions of its development, creating a clear vision of the services that would be provided, after the technical possibilities allowed it. One of the basic elements that represented Netflix's competitive advantage was the emphasis on consumers, their wishes,

requirements, and needs. Netflix felt that it should not make significant efforts to analyze the activities of its most significant competitors because the company had no control over what the competitors do. The management of Netflix and its owners have very well understood the essence of the changes brought about by the digitalization of business, which required placing consumers at the center of all activities of the company.

#### 4. CONCLUSION

Digital transformation of business processes is one of the basic and most important prerequisites for achieving long-term sustainable competitiveness of organizations in modern business conditions. It had an impact on all segments of modern human societies, with special emphasis on its influence on the business organizations, which must digitize their business models if they want to adequately meet the requirements and expectations of their consumers. Efficiently implemented digital transformation of business processes and digitization of business models can be significant source of competitive advantage in modern business circumstances.

A common mistake that organizations make during the digital transformation of business is reflected in an inadequate understanding of its essence and placing the emphasis exclusively on the introduction of digital technologies in business and the implementation of technological changes. Digital transformation is much more than that and it includes changes in all segments of business organizations and in all business processes that take place in them. The essence of the digital transformation of business processes and the digitalization of business models is reflected in the change of business philosophy of organizations and placing importance on the identification and satisfaction of wishes and needs of consumers.

This paper analyzed examples of two companies, which were engaged in identical activities and whose approaches to digital business transformation differed greatly. Blockbuster, which was the market leader in video and DVD renting in the United States, did not adequately understand the essence of digital transformation and the effects that digitalization will have on the business in which it operates. Blockbuster's inadequate and late response to digitalization resulted in the closure of the company, which was unable to adequately meet consumer needs and respond to competition

activities.

Netflix is one of the companies that has used most of the benefits of digitalization. It has been continuously adapting its business models to the demands and needs of consumers, as well as to the changes in the markets in which it has operated. The fact that Netflix started its business in a digital form was largely an advantage over competitors who used traditional business models. The main source of Netflix's competitive advantage and its extremely good market position is reflected in modern digital business transformations, which have always been based on analyzes of consumer and aimed to ensure maximum adaptation of the company's business to the wishes and needs of its existing and potential customers.

## REFERENCES

- [1] Perkin, N. & Abraham, P. (2017). *Building the Agile Business Through Digital Transformation*. London: Kogan Page
- [2] Rauser, A. (2016). *Digital Strategy: A Guide to Digital Business Transformation*. North Charleston: CreateSpace Independent Publishing Platform
- [3] Gale, M. & Aarons, C. (2018). Digital transformation: Delivering on the promise. *Leader to Leader*, 90, pp. 30-36.
- [4] Agarwal, R., Gao, G., Desroches, C. & Jha, A. (2010). The Digital Transformation of Healthcare: Current Status and the Road Ahead. *Information Systems Research*, 21(4), pp. 796-809.
- [5] Hess, T., Matt, C., Benlian, A. & Wiesböck, F. (2016). Options for Formulating a Digital Transformation Strategy. *MIS Quarterly Executive*, 15(2), pp. 123-139.
- [6] Henriette, E., Feki, M. & Boughzala, I. (2016). *Digital Transformation Challenges*. Paphos, Cyprus: 10th Mediterranean Conference on Information Systems
- [7] Bharadwaj, A., Omar, A. E. S., Pavlou, P. A. & Venkatraman, N. (2013). Digital Business Strategy: Toward a Next Generation of Insights. *MIS Quarterly*, 37(2), 471– 482.
- [8] Fichman, R. G., Brian, L. D. S. & Zheng, Z. (2014). Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum. *MIS Quarterly*, 38(2), pp. 329-343.
- [9] Bharadwaj, A., El Sawy, O. A., Pavlou, P. A. & Venkatraman, V. (2013). Visions and Voices on Emerging Challenges in Digital Business Strategy. *MIS Quarterly*, 37(2), pp. 633-661.
- [10] Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D. & Buckley, N. (2015). *Strategy, Not Technology, Drives Digital Transformation*. Boston: MIT Sloan Management Review and Deloitte University Press
- [11] Radović Marković, M. (2008). Managing the organizational change and culture in the age of globalization. *Journal of Business Economics and Management*, 9(1), pp. 3-11.
- [12] Abolhassan, F. (2017). *The Drivers of Digital Transformation*. Berlin: Springer
- [13] Henriette, E., Feki, M. & Boughzala, I. (2015). The Shape of Digital Transformation: A Systematic Literature Review. Samos, Greece: 9th Mediterranean Conference on Information Systems
- [14] Berman, S. J. & Marshall, A. (2014). The next digital transformation: from an individual-centered to an everyone-to-everyone economy. *Strategy & Leadership*, 42(5), pp. 9-17.
- [15] Bughin, J. & Zeebroeck, N. (2017). The best response to digital disruption. *MIT Sloan Management Review*, 58(4), pp. 80-85.
- [16] Rogers, D. (2016). *The Digital Transformation Playbook: Rethink Your Business for the Digital Age*. New York: Columbia Business School Publishing
- [17] Blaschke, M., Cigaina, M. & Riss, U. (2017). *Designing Business Models for the Digital Economy*, in Oswald, G. & Kleinmeier, M. (eds.). *Shaping the Digital Enterprise*. Cham: Springer International Publishing
- [18] Westerman, G., Bonnet, D. & McAfee, A. (2014). *Leading Digital: Turning Technology into Business Transformation*. Boston: Harvard Business Press
- [19] Bouwman, H., Haaker, T. & De Vos, H. (2008). *Mobile service innovation and business models*. Heidelberg: Springer
- [20] Berman, S. J. (2012). Digital transformation: opportunities to create new business models. *Strategy & Leadership*, 40(2), pp. 16-24.
- [21] Aral, S., Dellarocas, C. & Godes, D. (2013). Introduction to the Special Issue—Social Media and Business Transformation: A Framework for Research. *Information Systems Research*, 24(1), pp. 3-13.
- [22] Nadeem, A., Abedin, B., Cerpa, N. & Chew, E. (2018). Editorial: Digital Transformation & Digital Business Strategy in Electronic Commerce - The Role of Organizational Capabilities. *Journal of Theoretical and Applied Electronic Commerce Research*, 13(2), pp. I-VIII
- [23] Osterwalder, A. (2004). *The Business Model Ontology - A Proposition in a Design Science Approach*. Lausanne: Universite de Lausanne
- [24] Casadesus-Masanell, R. & Ricart, J.E. (2010). From Strategy to Business Models and onto Tactics. *Long Range Planning*, 43, pp. 195-215.
- [25] Zott, C. & Amit, R. (2007). Business Model Design and the Performance of Entrepreneurial Firms. *Organization Science*, 18(2), pp. 181-199.
- [26] Radović Marković, M., Baltezarević, V., Baltezarević, R. & Marković, D. (2014). Virtual organisation and motivational business management. Beograd: Institute of Economic Sciences
- [27] Marković, D., Radović Marković, M. & Minović, J. (2015). A new virtual team competence defining model. *Ekonomika istraživanja*, 28(1), pp. 1034-1045.
- [28] Baker, M. (2014). *Digital Transformation (Digital Expertise)*. Buckingham: Buckingham Business Monographs
- [29] Rose, F. (2014). *The Blockbuster Syndrome*. The Milken Institute Review, 16, pp. 36-47.
- [30] Davis, T. & Higgins, J. (2013). *A Blockbuster Failure: How an Outdated Business Model Destroyed a Giant*. Knoxville: University of Tennessee
- [31] Boneva, M. (2018). Challenges Related to the Digital Transformation of Business Companies. *Innovation Management, Entrepreneurship and Sustainability (IMES 2018)*, Proceedings of the 6th International Conference, pp. 101-114.
- [32] Sadq, Z. (2013). Analysing Netflix's Strategy. *International Journal of Science and Research*, 4(3), pp. 435-438.
- [33] <https://media.netflix.com/en/about-netflix>, accessed 5.6.2020.