UMEÅ UNIVERSITY

Managing the Digital Enterprise

Individual Assignment 2

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1 Digital Transformation in Incumbent Companies

Digitalization is a defining force in today's business landscape, reshaping company's operations and competitive strategies across various industries. They are changing constantly and rapidly to adapt to shifting market conditions and evolving circumstances. This transformation has also an impact on incumbent companies. [8, 14]

Incumbent company

Incumbent company refers to a well-established entity that has a significant presence and history within a particular industry or market. These companies have been in operation for a long period, often for many years or decades, and have typically achieved a level of market leadership, brand recognition, and customer base. [10, 11]

The adaptation of incumbent companies to the digital progress is often a necessity to remain relevant and competitive in a world where technology and customer expectations are constantly changing. [10, 11]

The digital transformation alters whole businesses and their strategies by focusing more on the customer. Incumbent companies are particularly facing challenges in changing and adapting quickly, because their organizational structures and strategies have already been executed without change for many years. [8]

Three key factors related to the digitalization of the business and technology environments around incumbent companies and their motivations for engaging in digital transformation are described below.

1.1 Customer Expectations

Changing customer expectations due to digitalization are an aspect of the evolving business landscape. As technology advances, consumers have come to expect seamless and personalized experiences when interacting with businesses, including e-commerce, mobile apps, personal recommendations or customer service. Consumers demand easy access, instant responses, and tailored solutions. [2, 7, 8, 10, 11]

In the following are listed some aspects of the change in customer expectations due to digitalization:

Personalization and Customization:

Digitalization enables businesses to collect and analyse data about their customers. As a result, customers expect a more personalized and tailored experience. They even expect that businesses will use their data to provide recommendations, promotions, and content that align with their preferences and behaviours. [7, 8, 10, 11]

One example for a company that has a tight connection with their customers wishes is the active wear brand Popflex¹. They redesign their clothes with the feedback and wishes of their customers, to make it fit on different body types and be as practical as possible.

• Convenience and Accessibility:

The convenience of digital channels, such as e-commerce websites, mobile apps, and online services, are the new standard. Customers expect quick and easy access to products, services, and information. [8, 11]

• Customer Support and Real-Time Interactions:

The internet has enabled real-time communication, which lead customers to expect quick responses and solutions. This includes not only customer support but also the way businesses handle transactions and other processes. Social media platforms and instant messaging services have created an expectation of immediate communication. [7, 10, 11]

• Transparency and Trust:

Digitalization has increased the transparency of company practices, making it easier for customers to access information about the products, prices and processes of a company. Customers now expect honesty and integrity from businesses. Any discrepancy between a company's digital image and its real-world actions can lead to a loss of trust. Customers even expect businesses to show a commitment to sustainability and social responsibility. [4]

• User-Friendly Design and Social Media Marketing:

The design and usability of digital interfaces and the digital marketing on social media have become crucial. Customers expect intuitive, user-friendly websites and applications and suitable social media marketing, including product placements, promotions or crowd sourcing. A poor user experience can drive customers away, even if the product or service is valuable. [7] In addition to this, customers rely on reviews and forums and social proof when making purchasing decisions. They might even expect companies to provide a platform for reviews and actively respond to feedback. [7]

• Security and Privacy:

With the increased sharing and collecting of data, customers are more concerned about their privacy and data security. They expect businesses to take robust measures to protect their information and to be secure against cyber attacks. [8, 9]

Incumbent companies must adapt to these changing expectations to remain competitive. Traditional businesses are forced to establish an online presence and enhance their digital channels to engage with customers effectively. Companies that fail to meet these expectations risk losing relevance on the market. [7, 8, 10, 11]

¹The brand can be found at https://www.popflexactive.com/ and the designer of the clothes is really strong at social media marketing, for example at https://www.youtube.com/@blogilates.

1.2 Data-Driven Decision-Making

The digital environment enables companies the option to collect big amounts of data that can be analysed for insights, predictions, and informed decision-making. Companies that effectively use data analytics can have a competitive advantage by understanding customer behaviour, optimizing their operations and predicting trends. [5, 8]

In the following are listed some advantages and applications of data-driven decision-making:

• Personalization and Targeting:

Digitalization and the information that was gained by collected data allows personalized and targeted marketing and product recommendations. A certain level of personalization enhances the customer experience and can increase sales. [5, 7]

• Operational Efficiency:

Data-driven decision-making is not only applied to improve the customer experience. Businesses can optimize their internal processes and operations by analyzing data to identify bottlenecks, inefficiencies, and areas for improvement. This can result in cost decreasing and increased productivity. [5]

• Predictive Analytics:

Digitalization enables companies to use analytics and predict market trends and customer preferences. [5, 8, 11]

• Market Responsiveness:

Today's markets are changing rapidly. Data-driven decision-making enables companies to respond to these changes more effectively or even in real-time. They can quickly identify trends and adapt their strategies to new market demands. [5, 10, 11]

Organizations that use data-driven decision-making are enabled to have a significant competitive advantage. They can make informed decisions based on concrete data, leading to more successful business operations, including product launches, targeted marketing campaigns and optimized supply chains. Data-driven decision-making enables companies to stay competitive. [5, 10, 11]

1.3 New Technologies

The digitalization of the business environment has introduced new technologies. Innovations like artificial intelligence (AI), blockchain, Internet of Things (IoT), and data analytics are reshaping industries and enabling new business models. [3, 5, 6, 13]

New Technologies

AI Artificial Intelligence is the use of computer systems to perform tasks

that typically require human intelligence. [3]

Blockchain is a distributed ledger technology to record and verify

transactions across a network of computers. [13]

IoT The Internet of Things refers to a network of interconnected devices

and objects. [6]

Data analytics Data analytics involves the examination of data sets to extract valu-

able insights, patterns, and trends (Section 1.2). [5]

These technologies offer companies new tools to enhance their operations, optimize processes, and create innovative products and services. Businesses that adapt to these technologies can gain a significant competitive advantage. Companies that do not implement digital transformation risk falling behind and decreasing their success to competitors that better understand and adapt to today's changing market dynamics.

In summary, adapting to changing customer expectations (Section 1.1) and the advantages of data-driven decision-making (Section 1.2) and new technologies (Section 1.3) motivate incumbent companies to engage in digital transformation. Adapting to these aspects is crucial for their long-term success and companies that do not implement these changes risk losing relevance on the market.

2 Key challenges for established companies

The digital transformation of incumbent companies can lead to challenges due to their existing structures, cultures, and customer bases. Some potential key challenges are listed below.

• Legacy systems and technical requirements:

Incumbent companies often have older IT infrastructure and systems that may not easily integrate with newer digital technologies. Upgrading or replacing these systems can be complex and costly. [1, 12]

• Cultural resistance:

A significant challenge is overcoming resistance to change within the organization. Employees or leadership is already used to traditional ways of doing things and might resist adopting new practices. This can also be motivated by the fear of losing their jobs. [12]

• Lack of digital expertise:

Incumbent companies might not have the expertise in digital technologies in-house. [12]

o Decisions on digital strategies:

Companies must decide on and execute digital strategies. [10, 11, 12]

• Data security and privacy:

Companies must ensure robust data security and privacy to protect customer information. [10, 12]

• Performance:

Digital solutions need to scale to meet increasing demands while maintaining performance. [11, 12]

• Customer transition:

Transitioning the existing customer base to new digital platforms or services can be challenging. They might be used to the traditional business model. [12]

• Financial aspects:

Digital transformation projects can be expensive. [10, 11, 12]

3 Strategies for overcoming challenges

The digital transformation of incumbent companies raises several key challenges, that were discussed in Section 2. In the following, strategies for overcoming those challenges are accepted and discussed.

• Legacy Systems and technical requirements:

To overcome the challenge of replacing legacy systems and other required technology in digitalization, the existing legacy systems need to be analysed first. Systems that are critical for business operations should be prioritized in the transformation process. The focus should lay on replacing or improving one system at a time. If needed, new digital solutions should work without issues together with the already existing legacy systems. After introducing a new digital solution, the employees of a company could be trained in using it efficiently. [1, 12]

• Cultural Resistance:

Incumbent organizations may have established cultures and traditions that resist change. To mitigate this challenge, they can implement change management strategies rooted in the literature, emphasizing the importance of adaptability and fostering a culture of innovation. [12]

• Gain of digital expertise:

The need for skills and talent to navigate the digital landscape is essential. Incumbent companies can develop training programs and hire employees for in-house know-how. [12]

• Data Privacy and Security:

Data privacy and security are crucial. Incumbent companies should do research on data protection regulations and laws to stay in the legal area. They might even need an internal department dealing with cybersecurity.

• Customer transition:

The digital transformation should align with the customer needs. Incumbent companies can collect data on their customers behaviour, wishes and expectations to transform in a suitable and customer-oriented way.

• Agile Methodologies:

Introducing agile methodologies in an incumbent company leads to adopting flexible, iterative approaches to digital transformation. This can help them adapt to changing circumstances and market dynamics.

By applying these concepts, incumbent companies can increase their chance to successfully transition to a digital business model.

References

- [1] Keith Bennett. "Legacy systems: Coping with success". In: *IEEE software* 12.1 (1995), pp. 19–23.
- [2] Lars Bollweg, Richard Lackes, Markus Siepermann, Arbnesh Sutaj, and Peter Weber. "Digitalization of local owner operated retail outlets: the role of the perception of competition and customer expectations". In: (2016).
- [3] Wolfgang Ertel. Introduction to artificial intelligence. Springer, 2018.
- [4] Dejan Jelovac, Čedomir Ljubojević, and Ljubomir Ljubojević. "HPC in business: the impact of corporate digital responsibility on building digital trust and responsible corporate digital governance". In: *Digital Policy, Regulation and Governance* 24.6 (2022), pp. 485–497.
- [5] Foster Provost and Tom Fawcett. "Data science and its relationship to big data and data-driven decision making". In: *Big data* 1.1 (2013), pp. 51–59.
- [6] Karen Rose, Scott Eldridge, and Lyman Chapin. "The internet of things: An overview". In: *The internet society (ISOC)* 80 (2015), pp. 1–50.
- [7] Murugesan Saravanakumar and T SuganthaLakshmi. "Social media marketing". In: Life science journal 9.4 (2012), pp. 4444–4451.
- [8] Sandra Sjöbäck and Amanda Spaak. "Digital Business Transformation in Incumbent Firms". MA thesis. Linköping University, 2021.
- [9] National University. What is Cybersecurity and Its Importance to Business. URL: https://www.nu.edu/blog/what-is-cybersecurity/#:~:text=A%20cyberattack%20can%20disrupt%20your,the%20potential%20for%20costly%20interruptions. (visited on 09/25/2023).
- [10] Venkat Venkatraman. The digital matrix: new rules for business transformation through technology. LifeTree Media, 2017.
- [11] George Westerman, Didier Bonnet, and Andrew McAfee. Leading digital: Turning technology into business transformation. Harvard Business Press, 2014.
- [12] Prof. Dr. Manuel Wiesche. Lecture notes in Digitalisierung. TU Dortmund. 2021.
- [13] Ting Yu, Zhiwei Lin, and Qingliang Tang. "Blockchain: The introduction and its application in financial accounting". In: *Journal of Corporate Accounting & Finance* 29.4 (2018), pp. 37–47.
- [14] Zhengyi Zhang, Jun Jin, Shijing Li, and Yuanmin Zhang. "Digital transformation of incumbent firms from the perspective of portfolios of innovation". In: *Technology in Society* 72 (2023), p. 102149. ISSN: 0160-791X. DOI: https://doi.org/10.1016/j.techsoc.2022.102149. URL: https://www.sciencedirect.com/science/article/pii/S0160791X22002901.