

# Exploring the Impact of Emerging Technologies on Business Models, Customer Behavior, and Workforce Implications

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**Abstract.** *In this study, we investigate how new technologies affect traditional company structures, consumer habits, and the implications for the labor force. This research delves deeply into the potential of robots, blockchain, and AI to disrupt existing markets and pave the way for new forms of business and product development. The study used a qualitative strategy, which included a literature review and industry-specific case studies. According to the data and analysis, if you want to successfully adopt new technologies, you need to take a strategic approach that takes into account the wants and fears of your customers and employees while also opening the door to growth and innovation. This research emphasizes the value of learning about and catering to customers' individual preferences and requirements before investing in the creation of customer-centric technologies. In addition, it stresses the significance of businesses investing in retraining and development to equip their workforce with the skills necessary to adapt to new job roles, as well as working with the workforce to address concerns and meet their needs. Finally, to effectively utilize emerging technologies for growth and innovation, it is necessary to continually evaluate and adjust to the impact they are having on business models, customer behavior, and the workforce.*

**Keywords:** *Emerging Technologies, Business Models, Customer Behavior, Workforce Implications*

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## INTRODUCTION

Artificial intelligence, blockchain, and the Internet of Things are just a few examples of the emerging technologies that are changing the way companies function and compete in the modern global economy, as stated by di Vaio et al. (2020). These innovations may alter customer habits and company processes while also reshaping the nature of work (Moro-Visconti et al., 2020). Therefore, in order for businesses to survive and thrive in the twenty-first century, it is crucial that they comprehend how emerging technologies will affect their business models, customer behavior, and workforce consequences (di Vaio et al., 2020b).

This thesis aims to investigate the effects of new technologies on traditional company structures, consumer habits, and the implications for the labor force, as stated by Haseeb et al. (2019). The following are some of the issues that will hopefully be answered by the research: What effect do new tools have on established methods of doing business? How do new technologies affect the beliefs and habits of existing ones? When it comes to the workplace, how will new tools affect employers and employees?

A literature survey of new technologies and their effects on business models, consumer habits, and the labor market will kick off this thesis. The technology adoption model, the theory of disruptive innovation, and the theory of using available resources as a starting point will all be

used to develop the theoretical framework. Methodologically, we'll be taking a hybrid strategy, using both quantitative and qualitative techniques.

An overview of the study's findings and an examination of how new technologies have altered business practices, consumer habits, and the consequences for the labor force will be provided in the study's analysis and findings section. The results will be interpreted, the implications for businesses and policymakers discussed, and potential future study directions proposed in the discussion and implications section.

In sum, this thesis will aid in comprehending how emerging technologies affect business models, consumer habits, and the consequences for the labor force. This research will help companies compete in today's global economy by revealing how they can best respond to the evolving technology market and take advantage of new developments in this space.

## **METHODS**

Data for this research was gathered using both qualitative and quantitative techniques. The study's methodology takes the form of a case analysis of three organizations operating in various sectors but all of which have incorporated new technologies into their core operations. Semi-structured interviews, questionnaires, and secondary data analysis are all part of the process of gathering information.

### ***Participants***

Managers and workers from three organizations across sectors that have incorporated new technologies into their core business practices are the focus of this research. A wide variety of opinions and life situations were taken into account when selecting the participants.

### ***Data Collection***

Each company's managers and workers will be interviewed using semi-structured interviews to learn about their company's experiences integrating new technologies into its operations. In order to analyze the conversations, we will record them and transcribe them word for word.

The surveys will be sent out to customers of the three businesses to learn how they react to new technologies. The questionnaires will be taken care of electronically, and the results will be evaluated numerically.

To further our understanding of how these new technologies will affect the three companies, we will perform secondary data analysis on information already in the public domain, such as company reports, financial statements, and news articles.

### ***Data Analysis***

Quantitative and qualitative approaches will be used to examine the data. We will use thematic analysis to extract themes and trends from the qualitative information gathered in the semi-structured interviews. Survey quantitative data will be examined using descriptive statistics, correlation analysis, and regression analysis to establish causality and uncover patterns. Content analysis will be applied to the secondary data analysis to reveal underlying structures and trends.

### ***Validity and Reliability***

Triangulation of data from several different sources and approaches will guarantee the reliability of this research. Consistency in the data gathering and analysis procedures across the three case studies will guarantee the study's credibility.

## RESULTS AND DISCUSSION

Table 1: Descriptive Statistics of Business Model Impact on Emerging Technologies

Variable	Mean	Standard Deviation
Revenue Growth	4.21	0.78
Cost Reduction	4.05	0.92
Market Share	4.11	0.87
Competitive Advantage	4.05	0.81

This table provides descriptive information about the influence that developing technologies have had on various components of the business model. We have assessed four different variables: growth in revenue and costs, loss in market share, increase in competitive advantage, and market share. The generated results for each variable include the mean values as well as the standard deviations.

Table 2. Descriptive Statistics of Customer Behavior on Emerging Technologies

Variable	Frequency	Percentage
Adopting Emerging Technologies	60	48%
Resistant to Emerging Technologies	25	20%
Neutral to Emerging Technologies	20	16%
Aware of Emerging Technologies	15	12%
Unaware of Emerging Technologies	5	4%

The following table provides descriptive information about the behavior of customers toward developing technology. There are five factors that have been measured: awareness of emerging technologies, adoption of emerging technologies, resistance to emerging technologies, neutrality toward emerging technologies, and adoption of emerging technologies. Calculations have been made to determine the frequency as well as the percentage of each variable.

Table 3. Descriptive Statistics of Workforce Implications

Variable	Frequency	Percentage
Job Automation	25	20%
Skills Upgrading	45	36%
New Job Roles	30	24%
Job Losses	20	16%

This table demonstrates the descriptive statistics of the consequences that developing technology will have on the workforce. The frequency and percentage of four factors, namely work automation, skills upgrading, new job positions, and job losses, are presented here. These variables pertain to the labor market.

Several significant results concerning the influence of new technologies on business models, consumer behavior, and consequences for the workforce were uncovered by the case study analysis (Ipsen et al., 2021). After adopting new technologies, all three businesses had to make substantial adjustments to their operations (Parida et al., 2019). To boost customer engagement and sales, Company A, a retail company, implemented a chatbot on their website (Jenneboer et al., 2022). Company B is a financial services provider, and it recently adopted blockchain technology, which has resulted in a rise in client confidence and loyalty by making financial transactions more efficient and trustworthy (B. Rawat et al., 2020). Artificial intelligence was implemented at Company C, a manufacturing business, resulting in greater productivity and lower costs (Hee Lee & Yoon, 2021).

After implementing new technologies, customers' habits shifted, according to polls conducted by all three businesses (Gu et al., 2021). Company A's robot reportedly increased the company's customers' propensity to make purchases (Toader et al., 2020). The increased security and openness provided by blockchain technology were cited by Company B's customers as

reasons for their increased likelihood to trust the company (Bryant & Barnett, 2020). Clients of Business C said they were more likely to make purchases after the company increased both production speed and quality.

Numerous workforce implications of implementing emerging technologies were also uncovered by the case study research. Workers at all three businesses said they required instruction in the new tools, and some people were retrained or let go because of the technologies' greater productivity. There was some concern among workers about the introduction of new technologies, but all three businesses assured us that this concern was unfounded.

An examination of how new technologies might alter established businesses uncovered exciting prospects for development and change. The studies showed how important it was to take a strategic approach that was in line with the company's aims and values in order to successfully implement new technologies.

Insights into the effects of new technologies on consumer habits showed that these innovations hold promise for reshaping customer expectations and opening up fresh channels for brand advocacy. The studies showed that learning about the customers' wants and requirements was crucial to the success of implementing new technologies.

New employment opportunities and higher job satisfaction may result from adopting emerging technologies, as was found in an analysis of their implications for the workforce, but this transition will necessitate a more deliberate strategy for training and development. The studies showed that investing in staff education and growth was crucial to the effective introduction of new technologies.

Overall, this study's findings and analysis indicate that the effect of new technologies on traditional business models, consumer habits, and the implications for the labor force is nuanced and intricate. The requirements and values of the business, its customers, and its employees must all be taken into account in order for the implementation of new technologies to be a success.

### ***Analysis of the impact of emerging technologies on business models***

Business as usual may be threatened by emerging technologies, as stated by Paliwal et al. (2020), but this could lead to growth and development in other industries. This study's case studies show that organizations need to take a strategic strategy to integrating new technologies into their operations if they want to achieve their objectives (Camarinha-Matos et al., 2019). According to the findings of the case studies, effective adopters of new technologies are those that know what they want and make sure the new tools help them get there (Duan et al., 2020). Company A, a retail company, decided to adopt a chatbot on their website in an effort to boost online engagement and, by extension, sales. The chatbot was consistent with the company's mission to make shopping easy and available for all.

Based on the results of the case studies, it is clear that new technologies may cause major changes in the market (Sima et al., 2020). Company B, a financial services provider, for instance, adopted blockchain technology, facilitating transactions that were both quicker and more private. For banks that had previously depended on middlemen to process customer transactions, this was a game-changer. Company B used blockchain technology to give more reliable and faster services, posing a threat to the established banking system.

Emerging technologies have the ability to open up new avenues for innovation and growth, as evidenced by the case study analysis. Manufacturing firm Company C, for instance, has used AI to boost production output. This opened up chances for the company to innovate and develop by enhancing the quality and efficiency of production, leading to new product offerings and greater market share.

Case study research also showed that implementing new technologies is not without its risks, and that businesses need to spend money on things like new systems and employee

education in order to pull it off. They also need to be prepared for emergencies by being alert to and anticipating threats like security lapses.

A comprehensive look at how new technologies affect business models reveals the importance of a well-planned strategy to implementation that is in keeping with the company's core values and objectives. To ensure a smooth rollout, they should be prepared for setbacks by planning ahead for and budgeting for the resources (financial, human, and technological) that will be required. Successful adoption of new technologies has the potential to upend established industries and open up exciting new avenues for growth and development.

### ***Analysis of the impact of emerging technologies on customer behavior***

Sima et al. (2020) state that innovative technologies can shift consumer standards and open up fresh channels for brand loyalty and customer service. According to the studies included here, it was essential to have a thorough comprehension of customer requirements and preferences in order to effectively adopt new technologies.

Emerging technologies may alter consumers' hopes, as shown by the studies' findings (Stefanakis, 2020). Company A, a retail company, adopted a chatbot on their website, and as a result, they saw an uptick in website activity and in sales. Customers' expectations of the company's interaction with them shifted as a result of the chatbot, which made purchasing more straightforward and approachable.

The case studies also showed that new technologies may open up fresh avenues for customer participation and commitment (Cioffi et al., 2020). Company B, a financial services provider, for instance, adopted blockchain technology, facilitating transactions that were both quicker and more private. Customers felt more safe and comfortable making purchases as a result of this.

Case study research also showed that an in-depth familiarity with customer wants and requirements was necessary for the effective introduction of new technologies. Manufacturing firm Company C, for instance, has used AI to boost production output. As a result, consumer satisfaction rose as faster delivery of better goods became the norm. The business was successful because its employees took the time to learn about their customers' individual preferences and needs, and then adapted their AI strategies accordingly.

Moreover, the case studies demonstrated that there are dangers associated with putting new technologies into practice. As an illustration, businesses run the risk of implementing technologies that fail to deliver on their promises if they fail to adequately assess their customers' requirements and preferences. As a consequence, you risk losing customers and business.

The analysis of how new technologies affect consumer behavior as a whole indicates that a thorough familiarity with consumers' wants and needs is essential for a technology's effective rollout. To ensure that the implementation of emerging technologies lives up to customers' expectations, businesses must be cognizant of the risks involved and engage in the required R&D. Customers' expectations can shift, new possibilities for involvement and loyalty can open up, and satisfaction levels can rise if emerging technologies are implemented successfully.

### ***Analysis of the impact of emerging technologies on the workforce***

New technologies have the ability to revolutionize industries and spur economic development. This study's case studies show how important it is to take a proactive approach to implementing new technologies by taking into account the opinions and reservations of employees.

Case studies showed that new technologies may lead to different types of employment and educational prerequisites. Company A, a shopping company, hired a chatbot operator after installing one on their website. Because of this, the company had to provide its workers with the education and development they needed to successfully operate the chatbot.



Emerging technologies have the potential to automate some tasks and displace employees, as evidenced by the case study analysis. Company B, a financial services provider, for instance, adopted blockchain technology, facilitating transactions that were both quicker and more private. This resulted in a decline in the demand for middlemen, which ultimately led to the loss of some employment opportunities. For new technologies to be successfully implemented, businesses must provide workers with the education and training they need to take on new responsibilities.

Case study research also showed that some employees may be resistant to new technologies when they are introduced into the workplace. Manufacturing firm Company C, for instance, has used AI to boost production output. Workers became worried about losing their jobs and having to retrain as a consequence. The company's ability to successfully implement new technologies hinged on its ability to address these worries and work with the workforce to meet the latter's requirements and concerns.

Emerging technologies have the ability to open up new avenues for innovation and growth, as evidenced by the case study analysis. Company D, a medical service supplier, is an illustration of the widespread adoption of telemedicine. As a result, the business was able to attract a larger customer base and develop innovative new offerings.

The analysis of the effects of new technologies on the workforce as a whole indicates that a strategic approach that takes into account workers' concerns is necessary for effective implementation. Automation and the loss of jobs are real threats that need to be taken seriously by businesses, which means they need to prepare their workforces for the future by providing them with the education and experience they need to succeed in new fields. They should also collaborate with employees to solve problems and meet employee expectations. New possibilities for innovation and economic growth may arise as a result of the creation of new job roles and the acquisition of new skills necessitated by the widespread adoption of emerging technologies.

It is clear from studying how new technologies affect business strategies, consumer habits, and the nature of work that many sectors are on the verge of radical transformation. Implementing new technologies successfully calls for a well-thought-out plan that takes into account the wants and fears of both clients and employees while also opening the door to growth and development.

Companies need to be flexible and transformative in light of shifting consumer demands and expectations brought on by new technologies. New business strategies that are more productive, creative, and customer-focused may be the result of the application of emerging technologies. Case studies show how, for instance, chatbots, blockchain, and AI have the ability to revolutionize retail, financial services, and manufacturing. Understanding customer preferences and requirements in depth and investing in R&D to develop novel business models are essential for effectively implementing emerging technologies.

Companies need to be able to foresee and react to changing customer expectations and preferences as a result of the influence of new technologies on consumer behavior. New technologies may alter the ways in which consumers interact with businesses, opening up fresh channels for loyalty and interest. The case studies show how new technologies can open up new avenues for customer participation and loyalty but also how adopting technologies that don't deliver the promised benefits can be risky. To successfully adopt new technologies, businesses must have an in-depth knowledge of their customers' wants and preferences and be willing to invest in the R&D required to design and develop products that appeal to those customers.

Because of the potential for emerging technologies to create new job roles and skill requirements, as well as to automate certain tasks and displacing workers, it is imperative that businesses are able to address the needs and concerns of their employees and invest in the necessary retraining and development to ensure that employees have the skills required to transition to new job roles. In addition to demonstrating how new technologies can open up

possibilities for innovation and growth, the case studies also highlight the importance of employers listening to employee concerns and adapting to employee preferences.

In conclusion, the potential for significant change and transformation across different industries is revealed by the effect of emerging technologies on business models, consumer behavior, and the workforce. Implementing new technologies successfully calls for a well-thought-out plan that takes into account the wants and fears of both customers and employees while also opening the door to development and innovation. In order to meet the needs of today's customers, businesses must be flexible enough to make changes as needed and innovative enough to engage in R&D for new business models and customer-centric technologies. They must also invest in retraining and development to equip workers with the knowledge and abilities they'll need to adapt to new job roles, and they must work with the workforce to address concerns and meet requirements. Engaging and loyal customers, more satisfied clients, and new avenues for development and innovation can all result from the smart application of cutting-edge technologies.

## CONCLUSION

Business models, consumer habits, and employee dynamics are all likely to change as a result of the introduction of new technologies, so it's important for businesses to be flexible and open to change. Implementing new technologies successfully calls for a well-thought-out plan that takes into account the wants and fears of both customers and employees while also opening the door to development and innovation.

The case studies showed how new technologies like chatbots, blockchain, and AI have the ability to revolutionize sectors like retail, banking, and manufacturing. New, more effective, and customer-centric company models are possible thanks to these technological advancements. They have the potential to increase customer satisfaction while also generating new avenues for consumer engagement and loyalty.

However, there are dangers and difficulties associated with implementing new technologies. Some technologies, for instance, might not deliver the promised benefits or might raise fresh worries among consumers and workers. To successfully adopt new technologies, businesses must have an in-depth knowledge of their customers' wants and preferences and be willing to invest in the R&D required to design and develop products that appeal to those customers. In addition, businesses need to collaborate with their employees to address issues and meet their requirements, all while investing in retraining and development to equip workers with the abilities they'll need in their new roles.

Ultimately, the effect of new technologies on traditional company structures, consumer habits, and the employment landscape is a continuous and ever-changing process. Those businesses that manage to weather the storm of these shifts and adopt new technologies will have the best chance of long-term success and viability. In order to remain competitive and take advantage of the opportunities presented by new technologies, businesses need to regularly evaluate their strategies and investments.

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