

How Technology Can Improve or Affect Business

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Abstract: *Technological advancements have revolutionized the way companies operate in the modern world. Many types of research regarding the role of technology in improving business processes have been conducted with many scholars supporting the need for companies to put in place efficacious approaches to attract positive outcomes. Some of the recognizable benefits of technology discussed in the research include, its ability to save time, increase productivity, and improve work performance just to mention but a few. Even though technology has been associated with immense pros, it also has its negative sides like the promotion of cybercrime and its link to reducing manual labor. Therefore, leaders are obligated to expose their employees to the various training and educative platforms to enhance their understanding and skill-sets regarding how to use various technologies.*

Keywords: technology, technological advancements, employee performance, cybercrime

1. Introduction

Technological advances have and continue to play a fundamental role in business administration. Today, many international corporations have thrived because of technology and more start-ups have managed to become competitive as a result of the way they appreciate and utilize these critical advancements. It should be of note that without technology, many companies would have gone out of business following the COVID-19 outbreak. Leaders are obligated to work with other stakeholders in formulating effective technological initiatives that could be implemented to create value in products (Gomes and Mário 116). It is important to note that though advances in technology have fostered immense changes across industries, organizations need to note the multiple challenges that may erupt when implementing technological tools. While numerous articles are suggesting the imperativeness of adopting technology to improve outcomes, it should be noted that these tools may also affect operations negatively.

1.1 Problem Statement

Organizational employees across different industries should know the relevance of technology in the workplace as such would help improve decision-making, efficiency as well as promote flexibility. Nonetheless, organizational leaders are bestowed with the sole responsibility of ensuring the sundry also understands the negative impact of choosing certain technologies. A broad understanding of the two sides of the coin is consequential in attracting desirable outcomes for the business.

1.2 Research Objectives

The main objective of the research is to dive deep into past works of literature and analyze different case studies and make useful conclusions and recommendations. This particular study is common has been researched by many business scholars. Therefore, the case study would provide an additional body of knowledge to the existing ones. The main question being studied in this case is; what is the role of technology in improving or affecting business operations? Following an in-depth analysis and discussion of the topic,

instrumental recommendations would be derived from the overall findings.

2. Literature Review

Gomes and Mário (114) denote that technology has significant importance on business depending on how it is implemented. Technology is used in different situations and with proper management tools put in place, may take a company to an entirely different level. The qualitative study aimed at finding extensive information about the need for technology. The researchers collected data from employees by using effective collection tools such as interviews, focus groups, and observations. It was affirmed that technology improved flexibility in the working place. Nowadays, technology has helped employees to achieve their deadlines faster and comfortably. It should be noted that some work environments tend to be dynamic and employees are required to be highly adaptable in any surrounding.

Proper and sufficient technological tools may help ease burdens hence allow smooth operations in the workplace. Another important observation in the study was that technological tools were instrumental in increasing productivity (Gomes and Mário 115). Companies strive to create a competitive edge for their products and services. As a result of increased flexibility, it was maintained that computer systems and automated production machines helped business operations to run smoothly. Employees affirmed that computer systems and advances in internet connections have allowed them to work from home and still be admirable performers. The article concluded with researchers asserting the relevance of companies to expose their employees to workable training programs to improve their knowledge on how to use different technological tools.

Per Weldon and Rachel (837), machine learning, blockchains, and robotic process automation have been identified to affect the human factor in business administration. It is important to note that one of the major effects of technology in business is its devastating impact on employee numbers. Technological tools fostered automation processes which in turn caused many individuals to lose their job titles. According to research, manual labor is gradually being replaced by technological tools and such has

impacted millions of families across the globe especially in developed regions. Nonetheless, advances in information technology have been affirmed to improve business management processes.

Smeureanu and Bassel (13) affirm that a good number of job profiles will disappear or change in the coming decade. Some of the areas that will be replaced by computerization will include court clerks, dishwashers, and telemarketers just to mention but a few. With regards to ethics, technologies such as artificial intelligence may be biased in certain situations hence may influence bad decisions without proper intervention from humans. This is because AI systems make decisions from statistical data programmed in the systems. On the other hand, Smeureanu and Bassel (11) agree with other scholars that these advances tend to speed up stressful processes due to the duration it takes to complete them.

Per Hizam-Hanafiah and Mansoor (36), information technology has been instrumentals in improving communication in the workplace. Contemporary organizations are required to interact efficaciously with clients to promote loyalty. Proper communication with customers tends to increase trust and as potential clients feel recognized and appreciated. The objective of the research was to analyze the impact of technology in improving customer satisfaction levels. The participants of the research maintained that the website of the company was highly communicative and reliable. For instance, customers managed to learn about the updates and the potential new product that are about to be introduced in the market. Apart from this, it was concluded that effective communication between the organization and customers helped to create a stronger public image for the company. Improved public image is consequential in attracting high customer rates which in turn increases sales.

The study conducted by Utomo et al. (38) aimed to investigate the impact of technology on changing organizational culture. It is important to note that traditional methods of communication are rapidly being replaced by new approaches that are deemed more effective. For instance, an international business may require employees to collaborate and consult with others working in a different geographical setting. Communication helps promote an interactive culture where relationships are improved while distrust and tensions are reduced significantly. Social tensions and cliques are recognizable problems that may impact relationships. However, Utomo et al (40) insert that adoption of effective technological tools promotes a business culture of diversity where workers put their unique cultural backgrounds aside and work collaboratively and harmoniously to promote relationships.

Per Jain and Ashank (50), enhanced technology has been proved to facilitate online marketing. As aforementioned, technology has helped enhance communication among customers and businesses. The need to find workable techniques of marketing increased when modern technology became popular. For instance, the establishment of social media platforms has enabled businesses to grow and thrive in other countries. This is because interactions between customers and the business have been made simpler and

more efficient. The fashion industry is growing remarkably with many companies striving to reach out to customers through platforms such as Instagram, Facebook, and Twitter just to mention but a few.

A case study conducted by Hizam-Hanafiah and Mansoor (35) affirms that technology fosters innovation and creativity in organizations. However, the authors argue that many organizations lack information regarding the latest technological tools that are available in industry 4.0. The descriptive study included 238 technology organizations in Malaysia. The researchers concluded that open innovation will likely be improved in the future as technology continues to advance rapidly (Hizam-Hanafiah and Mansoor 34). Companies are advised to increase their awareness of industry 4.0 technologies as they play a vital role in improving innovation.

Following Setiawan (653) cybercrime has increased as a result of technological advances. In turn, trust between customers and businesses may be impacted negatively. It is crucial to maintain that trustworthiness is a vital element that businesses need to respect and maintain. This is because failure to do so may shun the company's name. Setiawan (654) denotes that a major negative consequence of technology is the increasing rate of cybercrime activities. As a result of this, a customer may change their perception of shopping online. The authors emphasized the imperativeness of adopting useful strategies to assist businesses to cultivate trust by protecting customers from cyber-attacks. With increased trust, consumer purchasing patterns change positively.

3. Theoretical Framework

Multiple theoretical concepts have been identified as useful tools for attracting impressive business strategies. Some of the most common concepts revolving around technology use that have been studied over the years include the meta-learning concept, the product development concept theory, and technological interdependence theory (Setiawan 652). Each of the mentioned concepts plays a fundamental role in attracting positive outcomes for the business.

New Product Development

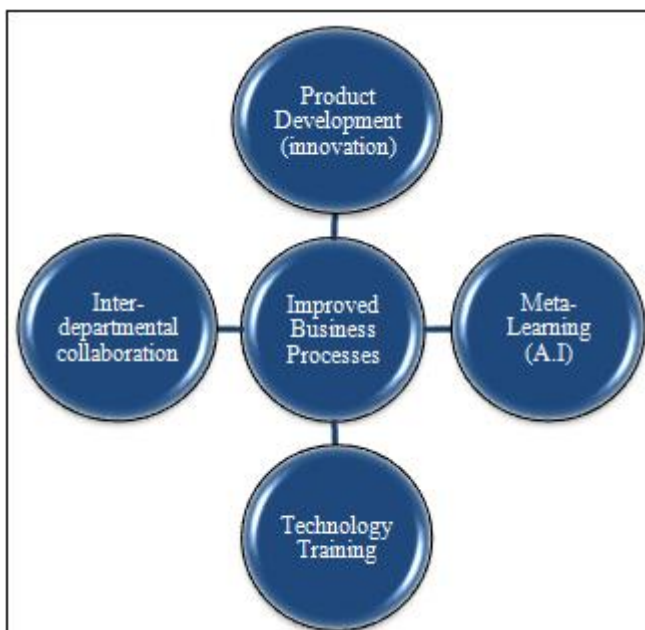
The development of a new product requires an organization to use workable technological tools. It should be noted that technology plays a crucial role in the product development process. The development process comprises all the stages that are needed to create an idea of a product to when the product reaches the market. With regards to the design thinking framework, technological tools are essential for empathizing with users and providing them with effective problem-solving solutions. Also, technology helps in market research where project teams are required to gain the necessary information regarding the market. Also, when the product reaches the marketing stage, companies rely on technological processes to advertise and interact with customers. Computer systems have been recognized to help companies store data about various projects. Therefore, companies could use this marketing data to identify customer needs and preferences.

Meta-learning

Meta-learning is a branch of machine learning that explains the ideas that led to the creation of computer systems. The breakthrough of artificial intelligence was inspired by the ability of these systems to learn and adapt progressively without abiding by any explicit instructions (Utomo et al 43). The use of statistical models and algorithms enables computer systems to have a brain of their own and such has helped businesses to operate and maneuver efficiently in the market. According to research, meta-learning allows machines to obey automatic commands without the use of the human intervention. The ability to learn from historical data and past experiences is important for computer systems as they also reduce the cases of errors occurring. Businesses tend to go for technologies that can perform effectively without the use of the human intervention.

Technological Interdependence

The technological interdependence theory is the degree to which different organizational parts are required to exchange information and other relevant material among departments. Per the research, there are three main types of technological interdependence that organizations adopt (Hizam-Hanafiah and Mansoor 37). For starters, in pooled interdependence, various units operate interdependently through their effort and success is healthy for the entire organization. Sequential interdependence is another type of technological interdependence that implies one unit must complete a particular work before another takes over. For instance, a strike in one of the plants of a motor company often causes employees from other plants to lurk behind and be laid off. Concerning reciprocal interdependence, a department's outputs become the inputs of another department. For example, in a case where an airplane lands, the pilots and the flight crew hand the plane to the maintenance crew. After being serviced, the plane is then turned back to the flight crew. Interdepartmental information sharing allows units to function collaboratively and efficiently.

**4. Recommendation**

The change to paperless systems was attracted by technological advances. Even though technology has its negative side, there are numerous recommendations that when implemented, may take the organization to greater heights. The first recommendation would be to expose employees to educative programs to sharpen their skill-sets and knowledge about how to use different technologies. By encouraging a culture of technology information sharing, employees become more efficient in their respective workplaces.

Companies should also be cautious when integrating technology due to its uncertainties. For instance, the problem of cybercrimes has been proven to cause devastating effects to companies. Therefore, organizational leaders are obligated to use the various cybersecurity initiatives to protect data files and other crucial company information (Hizam-Hanafiah and Mansoor 35). By installing anti-hacking software, businesses become aware of any potential threats and prevent them from affecting the business processes. Employees tend to be motivated when they feel secured and free from unprecedented attacks.

Moreover, companies should strive to increase awareness about the imperativeness of technology in improving corporate strategy. Technological change may be hectic to implement as other employees may not be in the same boat with the management team. Leaders are encouraged to use efficacious communication strategies to influence employees as this awareness would assist them to see the bigger picture thus enable them to change their views and support change. On the other hand, failure to adopt thoughtful measures to alter how employees think might contribute to the rise of conflicts and further rejection.

Another workable recommendation is for businesses to allocate sufficient resources towards implementing the latest advanced technologies that are more efficient and capable. It is important to note that technology is improving rapidly and more advanced technologies are being introduced to the market. Though purchasing new technologies may be costly, companies are required to set aside enough funds that would allow them to get the most efficient technological tools. Investing has been proven to help companies achieve high success within a short period (Setiawan 655). Most importantly, acquiring advanced technologies increase innovation and a high production rate. Here, a company creates a competitive edge for its products which helps it to stay relevant in the market.

Leaders should also engage employees while coming up with technological plans. Employee engagement has been deemed important as, through it, diversity is encouraged. By engaging employees in matters concerning new technology adoption, leaders get helpful insights from different employees who are knowledgeable about the latest technologies. In return, the management team can reach the most profound decisions. Also, by encouraging a culture of teamwork, employees may use the help of other colleagues to learn how to operate newly installed pieces of machinery or computer systems. Employees who can use technological

tools efficiently tend to be satisfied and highly motivated to perform admirably with others. As a result, high production rates are achieved.

5. Future Scope

Technology and business operations go hand in hand and could be deemed inseparable. Following research, the future of technology is bright and with new inventions being introduced daily, means business processes will likely improve as time goes by. The most common form of technology that will be utilized by many companies in the future is artificial intelligence (Utomo et al. 42). Though AI was introduced a while back, reports suggest that it is still in its early stages. In the future, AI will be relied on in various types of business processes primarily those that revolve around security.

The idea of 3D printing will also be widely used in the future especially by manufacturing companies, It is important to note that currently, the cost of introducing 3D printing is high for most organizations wishing to carry out large-scale operations. However, as time goes by, the technology will likely be highly available and will also be cost-effective. Once this is achieved, production speed will enhance significantly thus increasing product value. Medical supply manufacturers will benefit the most from this initiative because the demand for clinical equipment and medical kits is rising tremendously. Last but not least, technology companies are increasingly moving towards promoting cybersecurity. As mentioned earlier, cybercrimes are on the rise and there is a need for more strategic approaches to be invited for positive outcomes to be attained. This is because, in the future, companies that will not have strict security measures at hand may fail to survive for long.

6. Conclusion

Many firms are increasingly adopting the latest technological tools to help support business operations. However, before installing these tools, organizations need to ensure the sundry in the organization agrees with its implementation. The various theoretical frameworks revolving around technology use should also be understood for correct assumptions to be made by managers. Most crucially, companies should be aware of both the relevance and the downsides of introducing new technologies.

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