



# THE IMPACT OF TECHNOLOGICAL ADVANCEMENT ON BUSINESS PERFORMANCE: PAPER REVIEW

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## ABSTRACT

*The main objective of this study is to review the previous research work focusing on the advancement of technology and business performance and identify its impact on business organizations and their performance with aid of technological advancements and the encouragement of organizations for technology adoption in order to improve business performance. In this research, deep literature review has been done towards achieving the objective of the study. One of the major finding of this research is that implementing and adopting new technologies would certainly enhance and improves the performance of the business and organizations. Another important thing to mention here, keeping with state-of the art technology will prevent some additional costs such as maintenance costs, handling costs and layover costs. For sure, the new technologies will deliver the work efficiently and effectively.*

**KEYWORDS:** *technological advancement, technology adoption, business performance, organizations performance*

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## I. INTRODUCTION

Technological advancement is defined as technological change (Camagni, 2017). According to Coccia (2016), this type of change is mainly characterized by innovation and breakthroughs and plays an integral role in improving the performance of organizations. Enterprises that embrace new technology are likely to register superior business performances compared to those that are unwilling to invest in new technology. Robotics technology and Artificial Intelligence are some of the outcomes of technological advancements that have improved operational efficiency in different industries and sectors.

Technology is fueling the shift towards industry 4.0 where humans mainly serve as problem solvers and strategic decision makers as technology takes over many functions (Hermann, Pentek, & Otto, 2016). There is, however, a research gap on attitudes towards new technology in both theory and practice and

how firms generally react to technological advancements (Kerschner & Ehlers, 2016).

Firms and employees have different attitudes towards new technology. For employees, the main challenge is whether they consider new technology as a threat to their positions within their organizations (Venkatesh & Bala, 2008). Artificial intelligence and robotics technology have taken over many functions that were previously performed by employees in the workplace. As companies adopt new technology, they have to contend with employees' resistance to change. The attitudes of employees towards new technology, therefore, influence how well a company implements and integrates new technology into its operations.

The attitude of firms towards new technology is determined by the cost-saving capabilities of such technology. It is also influenced by the willingness of an organization to adapt to changes in the marketplace (Kerr



& Newell, 2003). The attitudes of business organizations towards technological advancements and how this influences the adoption of new technology and ultimately the performance of the firm is, therefore, an important area of research.

## II. RESEARCH OBJECTIVE

The objective of conducting this research is review the previous studies focused on the advancement of technology and its impact on the organizations as well as the business performance.

## III. DISCUSSION

The modern world has been encompassed by technological advancement in all aspects of life. Technological advancement is defined as technological change (Camagni, 2017). According to Coccia (2016), the kind of variation is mainly categorized by invention and revolutions and plays an integral role in improving the performance of organizations. Enterprises that embrace new technology are likely to register superior business performances compared to those that are unwilling to invest in new technology.

Robotics technology and Artificial Intelligence are some of the outcomes of technological advancements that have improved operational efficiency in different industries and sectors.

Technology is fueling the shift towards industry 4.0 where humans mainly serve as problem solvers and strategic decision makers as technology takes over many functions (Hermann, Pentek, & Otto, 2016).

There is, however, a research gap on attitudes towards new technology in both theory and practice and how firms generally react to technological advancements (Kerschner & Ehlers, 2016). Firms and employees have different attitudes towards new technology. For employees, the main challenge is whether they consider new technology as a threat to their positions within their organisations (Venkatesh & Bala, 2008).

Artificial intelligence and robotics technology have taken over many functions that were previously performed by employees in the workplace. As companies adopt new technology, they have to contend with employees' resistance to change. The attitudes of employees towards new technology, therefore, influence how well a company implements and integrates new technology into its operations. In addition, the attitude of firms towards new technology is determined by the cost-saving capabilities of such technology. It is also influenced by the willingness of an organization to adapt to changes in the marketplace (Kerr & Newell, 2003). The attitudes of business

organizations towards technological advancements and how this influences the adoption of new technology and ultimately the performance of the firm is, therefore, an important area of research.

The success that people are enjoying has been basically founded on creativity and innovation which has spilled over to all endeavors of the modern life. Project management has not been left out in the dynamics which have been sweeping around across the globe.

## IV. CONCLUSION

Technology has been known to be changing in a considerably faster rate as compared to human factors. This has been blamed to the failure by humans to embrace change. Ergonomics and human factors is an area that has not been exhausted by researchers. It has been relevant in his research on ergonomics and the mediating role of technology in the modern world. However, the theoretical perspectives of the correlated researches have established that there is a considerable incompatibility in human factors in the aspects of engineering, science management and technology

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