AI Adoption in the Printing Industry: an FVM Perspective

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Introduction

• Malaysia’s manufacturing sector is moving towards a higher value-added process, with digitisation, advanced manufacturing technologies and efficient resource utilisation. All this is meant to ensure the manufacturing sector remains relevant and competitive both locally and globally.

• Artificial intelligence, among other innovations, has been recognized as the enabling technology for Industry 4.0.

• AI offers solutions that are becoming crucial tools in organisational management assistance, especially as regards improvements in decision-making processes. Therefore, AI solutions are expected to bring a new dimension to the industrial environment, resulting in a dramatic increase in industrial productivity.
This evolution looks to include the rapidly-changing global print manufacturing landscape, which is seeing growing calls for printing firms to re-evaluate their current approaches and strategies so as to remain relevant and competitive. Currently, the Malaysian printing industry is operating in survival mode due to its participants’ inability to invest large sums to import the latest, and thereby expensive machinery, leaving small firms unable to compete against the giants [1].
Research questions

• This paper thus aims to fill this gap by answering the following research questions:
  • *What theoretical framework can be used in studying the printing industry’s adoption of artificial intelligence solutions in Malaysia?*
  • *What are the identifying factors that may affect the adoption of AI solutions in the printing industry?*
AI in the printing industry

While aiming to enhance the efficiency and flexibility of an organisation, AI also opens up new opportunities for

• greater efficiency;
• greater protection;
• greater automation;
The characteristics and economic value of AI solution.
FRAMEWORK FOR ADOPTING ARTIFICIAL INTELLIGENCE FROM THE FIT-VIABILITY MODEL
Discussion And Conclusion

• The purpose of this ongoing research is to conceptualize a framework to investigate AI solutions implementations in the printing industry.

• We recognize that AI is an enabling technology for Industry 4.0, and in order to support government initiatives to enhance productivity in the manufacturing sector, particularly in the printing industry, we feel it is necessary and critical to look at the organisational and task/technology characteristics of today’s global business environment.

• As with any other IS implementations, AI solutions implementations comprise technology as well as human involvement.

• Under these circumstances, it is important to investigate the impacts of task characteristics, technology characteristics, economics, and IT infrastructure factors on the organisational decision-making process. Thus, in this research, the importance of studying systems’ viability and fit prior to adoption is stressed. Therefore, the proposition of this study is to perform the required tasks-to-technology needs analysis to determine a good fit for the required tasks. In addition, viability and fit should have positive effects on the organisation’s performance, which can be measured by functionalities and productivity.
References


