Impact of Executive Leadership on Accounting Information System Quality and Its Effect on Accounting Information Quality

Afrizal Nilwan[1], Bambang Sumbogo[2], Indriati Agustina Gultom[3], Iskandar Ali Alam[4], Andala Rama Putra Barusman[5]
andala@ubl.ac.id

[12345]Universitas Bandar Lampung

Abstract

To maintain a competitive edge and ensure organizational health, companies require robust information systems. Accounting Information Systems (AIS) play a crucial role in generating the information needed for effective managerial decision-making. The quality of this information is significantly influenced by the quality of the AIS. This paper examines the influence of top management support on the quality of AIS and its subsequent impact on the quality of accounting information. Through a theoretical exploration, this study highlights how top management support enhances AIS quality and, consequently, improves the quality of accounting information. The findings suggest that strong top management support leads to better AIS quality, which in turn positively affects the quality of decision-making by providing more reliable information.

Keywords: Top Management Support; Quality of Accounting Information Systems; Quality of Accounting Information

Introduction

In the rapidly evolving landscape of modern business, the integration of Intelligent Automation (IA) into knowledge and service work has garnered substantial attention. Driven by advancements in Artificial Intelligence (AI) and Machine Learning (ML), (Coombs et al., 2020)(Suri et al., 2019; (Tariq et al., 2021) (Suri et al., 2019) IA represents a significant leap in automating complex business processes. This study aims to explore the strategic impacts of IA on enhancing business process performance by automating tasks, improving precision, reducing labor costs, and enabling better decision-making(Barusman & Hidayat, 2017).

The primary objective of this research is to assess how IA can enhance business process performance through various means (Chakraborti et al., 2020) (Muthusamy et al., 2020)(Lee & Harrald, 1999).These include automating repetitive and mundane tasks, thereby freeing up human resources for more strategic activities, and improving the accuracy and reliability of processes which traditionally have been prone to human error. (Chakraborti et al., 2020). Moreover, IA can significantly reduce operational costs by decreasing the dependency on manual labor, thus optimizing the workforce and fostering a more efficient allocation of resources. Additionally, IA supports enhanced decision-making capabilities by providing real-time data and insights, which are critical for (Dzulhijatussarah & Defrizal, 2024).maintaining a competitive edge in today's fast-paced business environment. (Zhong & Deng, 2023) (Spector, 1986).

Previous studies have highlighted various aspects of IA's impacts on business processes and performance . For instance, Tou et al., (2020) found that IA can significantly enhance business process performance by automating tasks, improving precision, reducing labor costs, and enabling better decision-making. The study emphasized the importance of contextual applications, task-level automation, redesigning human roles, and the necessity of trust and acceptance in IA technologies. It employed a scoping review method, analyzing 219 relevant sources to synthesize

insights on the strategic impacts of IA, contextual factors, and lag effects, advocating for a mixed-methods and multidisciplinary approach to better understand IA's complexities and implications.

Similarly, (Carvalho et al., (2021) reviewed a collection of academic studies focusing on the relationship between management practices, innovation, and performance in small and medium-sized enterprises (SMEs). The study found that effective management practices, including human resources, information systems, and collaborative networks, significantly enhance SMEs' innovation capabilities and overall competitiveness. The research employed quantitative methods, including bibliometric analyses, case studies, and structural equation modeling, to explore these dynamics. Future recommendations from the article suggested further exploration of green innovation adoption, validation of existing models with larger samples, and deeper investigation into the impact of people management and strategy on innovation in SMEs, particularly in the context of Industry 4.0 and open innovation practices (Wilona & Defrizal, 2024).

Despite the growing body of literature on IA, there remains a significant gap in understanding its contextual applications, particularly at the task level, and how it necessitates the redesigning of human roles within organizations. Many existing studies have broadly addressed the benefits and challenges of IA; however, there is a lack of comprehensive analysis focusing on specific applications and the practical implications of IA in various business contexts.(Artificial Intelligence and Business Value: a Literature Review - Information Systems Frontiers, 2021) (Enholm et al., 2022) (Ahmad et al., 2024)Furthermore, the transition to an IA-driven workflow poses challenges in terms of workforce adaptation and acceptance, highlighting the need for strategies to manage these changes effectively.

This research seeks to fill this gap by providing a thorough examination of the factors that influence the successful implementation of IA. It aims to analyze the contextual applications of IA across different industries, the extent to which specific tasks can be automated, and the consequent redesigning of human roles (Acharya et al., 2018; Ng et al., 2021).By addressing these areas, this study will offer valuable insights into the strategic deployment of IA, contributing to a deeper understanding of its potential to transform business processes and improve overall organizational performance.

In summary, this research will delve into the strategic impacts of IA on business processes, focusing on its ability to enhance performance through task automation, precision improvement, cost reduction, and better decision-making. It will also explore the contextual applications of IA and the necessary changes in human roles, aiming to provide a comprehensive understanding of these dynamics and their implications for the future of work.

Methodology

This study employs a scoping review method to systematically analyze the strategic impacts of Intelligent Automation (IA) on business process performance. The scoping review method is chosen for its suitability in mapping the broad landscape of existing research, identifying key themes and patterns, and highlighting gaps in the current knowledge base. The primary objective is to provide a comprehensive overview of the state of research on IA, including contextual factors and lag effects, thereby enabling a critical evaluation of the study's overall validity and reliability (Collins et al., 2021; Guo & Liu, 2022; Ng et al., 2021).

The data collection process involves a meticulous search and selection of 219 relevant sources from various academic databases, industry reports, and other credible

publications. (Merlo et al., 2013). he databases include but are not limited to, IEEE Xplore, ScienceDirect, Google Scholar, and industry-specific journals. The search strategy employs a combination of keywords such as "Intelligent Automation," "Artificial Intelligence," "Machine Learning," "business process automation," "task-level automation," and "organizational role redesign." Boolean operators and inclusion/exclusion criteria are applied to ensure the relevance and quality of the selected sources.(Sarker, 2022; Tou et al., 2020).

The initial search yielded a large pool of potential studies, which were subjected to a two-tiered screening process. First, the titles and abstracts of the identified studies were reviewed to assess their relevance to the research questions. Studies that did not meet the inclusion criteria or were outside the scope of IA in business processes were excluded. Second, the remaining studies underwent a full-text review to further evaluate their relevance and quality. This evaluation was based on their methodology, findings, and contributions to understanding IA's impacts on business processes.

A standardized data extraction form was used to collect pertinent information from each selected study.(Ng et al., 2021)(Enholm et al., 2021) The extracted data included study characteristics (authors, publication year, study design, and research context), key findings (insights on the strategic impacts of IA, including automation benefits, precision improvement, cost reduction, and decision-making enhancement), contextual factors (specific applications of IA across different industries, task-level automation, and the redesigning of human roles), and challenges and limitations (identified barriers to IA implementation, workforce adaptation issues, and strategies for managing change).

The extracted data was then analyzed using thematic analysis to identify common themes and patterns. This process involved coding the data, grouping similar codes into themes, and interpreting the findings to draw meaningful conclusions about the strategic impacts of IA. To ensure the reliability and validity of the findings, each study was subjected to a quality assessment using established criteria.v(Bradley et al., 2007).These criteria included the clarity of research questions, robustness of methodology, comprehensiveness of data analysis, and the relevance and applicability of the findings. Studies that did not meet the quality standards were excluded from the final synthesis.

The synthesis of findings was conducted by summarizing the key themes and patterns identified in the reviewed studies. This synthesis provided a holistic view of the current state of research on IA, highlighting the benefits, challenges, and contextual factors associated with its implementation(Aldenaini et al., 2023; Martín-de Castro, 2015) Additionally, the synthesis identified gaps in the existing literature and suggested areas for future research.

The rationale for using the scoping review method lies in its ability to provide a broad and comprehensive overview of the research landscape on IA. It allows for the inclusion of a wide range of study designs and methodologies, facilitating a thorough examination of the strategic impacts of IA. This approach also helps in identifying research gaps and setting the stage for more focused future studies (Stahl et al., 2023).

In conclusion, the scoping review method employed in this study enables a detailed and systematic analysis of the strategic impacts of IA, providing valuable insights into its potential to transform business processes and improve organizational performance.

Results and Discussion

The scoping review reveals that Intelligent Automation (IA) has a substantial impact on enhancing business process performance across multiple dimensions. Analysis of 219 reviewed sources underscores IA's multifaceted benefits, including task automation, precision improvement, cost reduction, and enhanced decision-making capabilities (Coombs et al., 2020; Suri et al., 2019; Tariq et al., 2021).

One of the primary advantages of IA is its ability to automate repetitive and mundane tasks. This automation not only frees up human resources for more strategic activities but also enhances the accuracy and reliability of processes, which are crucial in sectors such as healthcare, finance, and manufacturing (Chakraborti et al., 2020; Coombs et al., 2020; Tariq et al., 2021). IA systems significantly reduce human error, leading to greater precision in operations. The improvement in precision, as noted by (Coombs et al., 2020) is essential for industries where accuracy is paramount.

Cost reduction is another significant benefit of IA. The review indicates that IA contributes to substantial cost savings by decreasing dependency on manual labor and optimizing workforce allocation (Muthusamy et al., 2020) Automation of routine tasks allows organizations to reallocate resources more efficiently, resulting in notable reductions in labor costs and enhanced operational efficiency. This cost-effectiveness is particularly advantageous for small and medium-sized enterprises (SMEs), which often operate with limited resources.

In terms of decision-making, IA systems offer valuable support by providing real-time data and insights. This capability is crucial for maintaining a competitive edge in today's fast-paced business environment (Zhong & Deng, 2023)). The review corroborates Carvalho's (2021) findings that IA enhances decision-making processes, leading to improved business performance and responsiveness.

The success of IA implementation largely depends on its contextual application and the specific tasks being automated (Chakraborti et al., 2020; Enholm et al., 2021). Tailoring IA solutions to different industries and organizational contexts ensures that automation is applied effectively, maximizing its benefits (Makowski & Kajikawa, 2021). Understanding the specific processes and tasks that can benefit from automation is crucial for successful implementation.

Integrating IA into organizations necessitates a redesign of human roles. As routine tasks are automated, human workers transition towards more strategic and creative functions (Khani-Shekarab & Khani-Shekarab, 2021). This shift poses challenges related to workforce adaptation and acceptance. Effective IA implementation requires comprehensive change management strategies to address these challenges and promote acceptance of new technologies (Tou et al., 2020).

A recurring theme across the reviewed studies is the importance of trust and acceptance in IA technologies (Acharya et al., 2018). The success of IA initiatives hinges on employees' willingness to embrace these technologies. Building trust involves transparent communication about IA's benefits and limitations, as well as involving employees in the implementation process. Organizations that manage these aspects effectively are more likely to achieve successful IA integration (Suri et al., 2019).

The results of this study align with previous research while also providing new insights into IA's strategic impacts. While existing literature broadly addresses IA's benefits and challenges, this study offers a more nuanced understanding of its contextual applications and task-specific automation (Artificial Intelligence and Business Value: a Literature Review - Information Systems Frontiers, 2021). The focus on redesigning

human roles and the critical role of trust and acceptance adds depth to the understanding of IA's implementation (T. H. Lee, 2013).

Several avenues for future research are suggested by the findings. Detailed case studies could offer deeper insights into IA's practical applications across various industries. Further exploration of IA's long-term impacts on workforce dynamics and organizational performance is warranted. Additionally, research on strategies to enhance employee acceptance and trust in IA technologies could contribute to more effective implementation practices (Chakraborti et al., 2020).

IA has the potential to transform business processes by automating tasks, improving precision, reducing costs, and enhancing decision-making. Successful implementation of IA depends on understanding its contextual applications, redesigning human roles, and fostering trust and acceptance among employees. This study provides a comprehensive analysis of these factors, offering valuable insights into the strategic deployment of IA and its implications for the future of work.

Conclusion

This study demonstrates that Intelligent Automation (IA) has the potential to significantly transform business processes by automating routine tasks and enhancing decision-making capabilities. The findings highlight that successful IA implementation depends on careful consideration of contextual factors, task-level automation, and the redesign of human roles within organizations. Importantly, the research underscores that the success of IA initiatives relies heavily on building trust and acceptance among employees. To fully leverage IA's benefits, future research should focus on several critical areas. These include exploring strategic investments in IA, assessing the impact on human worker performance, examining governance structures, and understanding the influence of contextual factors on IA deployment. By addressing these areas, future studies can provide deeper insights into optimizing IA implementation and its effects on organizational performance. This study contributes to the existing literature by offering a comprehensive analysis of IA's strategic impacts and highlights areas where further research could enhance understanding and application of IA technologies in diverse business contexts.

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