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THE CONTRIBUTION OF INFORMATION SYSTEMS TO THE PERFORMANCE OF SMEs

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Abstract :
This article examines the impact of information systems (IS) on business performance in a constantly evolving environment. At a time when customer needs are changing rapidly, only innovative companies can adapt effectively and remain competitive. The use of high-quality information technologies is now essential for the success of organizations. The growing importance of IS over the past decade is undeniable, as their implementation provides significant advantages in daily operations and strategic decision-making.
Continuous technological development is improving the performance of hardware and software, facilitating the global dissemination of IS. When properly integrated into operational processes, IS serve as key catalysts for enhancing business performance. However, the benefits of these systems can vary considerably from one company to another, depending on their industry and the processes for which the IS are deployed.
Evaluating the potential benefits of IS remains complex due to the diversity of both direct and indirect advantages, whether tangible or intangible. The primary objective of this research is to clarify the impact of IS on business performance through a review of the scientific literature and an empirical analysis. The central question the study addresses is what effect the implementation of an information system, particularly an ERP, has on a company's performance.

Keywords: Information systems, business performance, technological development, innovation, adaptation to customer needs.

Introduction

In a business environment marked by rapid technological change and intensifying competition, organisations are increasingly required to adapt their management practices in order to sustain performance. In particular, the growing volatility of customer expectations and market conditions has reinforced the strategic role of innovation, making information technologies a central lever for organisational efficiency and responsiveness. Within this context, information systems (IS) have become essential infrastructures that support both operational processes and managerial decision-making.

Over the past decade, a growing number of organisations have integrated information systems into their core activities (Davidavičienė, 2008; Paliulis et al., 2012). Prior research suggests that IS adoption can generate significant benefits by improving information quality, coordination, and organisational responsiveness, thereby enhancing both operational efficiency and strategic alignment (Pabedinskaitė, 2010). However, despite the extensive literature reporting positive effects, empirical evidence remains mixed and highly context-dependent. While some studies indicate that IS can enhance organisational performance when properly implemented (Pabedinskaitė, 2009; Yahaya et al., 2004; Merkuryev & Tambovcevs, 2009), other contributions report heterogeneous outcomes across firms and sectors. These inconsistencies suggest that performance gains depend not only on the technology itself, but also on organisational processes, sectoral characteristics, and the way systems are implemented and used. Moreover, evaluating IS impact remains challenging due to the coexistence of tangible and intangible benefits and the indirect mechanisms through which performance improvements may materialise.

Against this backdrop, a persistent gap remains regarding a comprehensive understanding of how and under which conditions information systems translate into improvements in organisational efficiency and effectiveness. Much of the existing research focuses either on adoption decisions or on specific performance indicators, while fewer studies explicitly examine the mechanisms and organisational conditions through which ERP systems create value, especially when combining theoretical foundations with empirical evidence.

To address this gap, the present study investigates the impact of information systems, with a specific focus on ERP systems, on company performance. It aims to assess how the deployment and use of ERP systems influence organisational efficiency and effectiveness. The study adopts a twofold approach: first, it provides an in-depth

literature-based analysis of the IS–performance relationship; second, it complements this perspective with a qualitative empirical investigation based on professional accounts. Accordingly, the research seeks to answer the following question: *« **What is the impact of implementing an information system, particularly an ERP, on a company's performance ? »***

This study contributes to the literature in three ways. Theoretically, it strengthens the debate on IS value creation by emphasising its contingent and multidimensional nature. Managerially, it provides insights for decision-makers regarding the organisational conditions required to realise performance gains from ERP systems. Methodologically, it combines a structured review of the literature with qualitative evidence, offering a richer understanding of ERP-related performance outcomes in practice.

The remainder of the paper is organised as follows. Section 2 reviews the literature on information systems, ERP implementation, and organisational performance. Section 3 presents the research methodology. Section 4 reports the empirical findings, and Section 5 discusses these findings in relation to prior studies. Finally, Section 6 concludes the paper by outlining key implications, limitations, and directions for future research.

I. Literature Review :

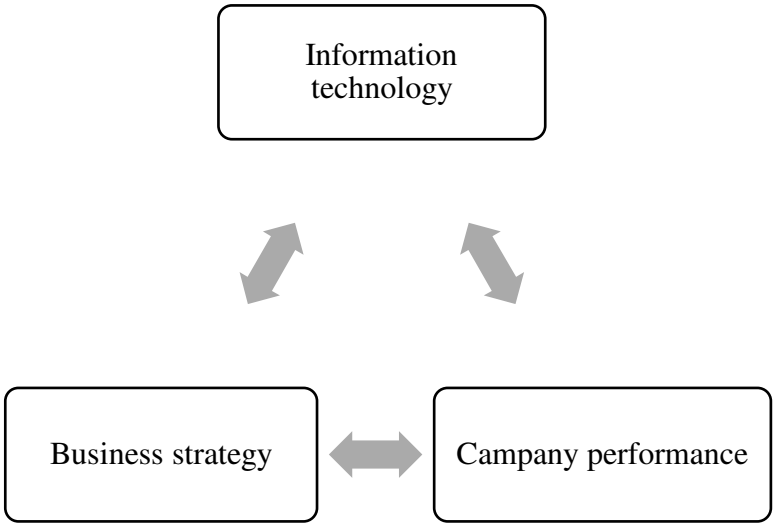
1.1. Performance and information systems :

The research analysis conducted by Awais et al. (2012) showed that over recent decades, companies in the modern world have increasingly recognized the necessity of information systems in business. It became nearly impossible to overlook the advantages and potential to enhance organizational performance through such an investment.

It was quickly observed that an IS could help these entities maintain liquidity, increase competitive advantage, and improve both business and financial performance, thereby generating greater profits. An IS is often described as an organized integration of human and IT resources, allowing for the collection, storage, retrieval, communication, and utilization of data to efficiently manage an organization's internal operations (NC Churchill, CH Kriebel, and AC Stredy, 1965). This definition highlights the fundamental purpose of these systems: to facilitate the efficient management of activities within the company.

Today, improving company performance through IT-related solutions is a common process (Chege, Wang, and Suntu, 2020). The enhancement of these entities' performance can be considered an intermediate step between information technology and business strategy (Hasanah, Shino, and Kosasih, 2022). Figure 1 illustrates the structure of company performance, positioned between a business strategy and information technology within the information system.

Figure 1 : The position of company performance



Source : Ravichandran et al., (2005)

Figure 1 illustrates the central position of company performance within the dynamic interaction between information technology and business strategy. Rather than exerting a direct and isolated impact, information technology influences organisational performance through its alignment with business strategy. Conversely, strategic orientations shape the way information technology is deployed and leveraged within the organisation.

This reciprocal relationship suggests that company performance emerges from the coherence between technological capabilities and strategic objectives, rather than from technology adoption alone. In this perspective, information technology acts as an enabling resource whose value depends on strategic integration, organisational context, and managerial choices. Consequently, performance outcomes are contingent upon the firm’s ability to align its information systems with its overall business strategy.

Sward's (2006) research supports this conclusion, indicating that performance is the result of certain benefits provided to distinct business units and the organization as a whole through IT solutions or related services, expressed across different parameters. Any

improvements made to information technology or information systems could lead to cost reductions and increased efficiency in employee activities. Additionally, the above-mentioned results enhance monitoring and coordination within an organization (Hendershott, 2006). Therefore, it can be argued that the overall impact on company performance could be defined by analyzing the tangible and intangible benefits obtained after implementing an information system.

1.2. Improving company performance through ERP implementation :

Enterprise Resource Planning (ERP) systems are widely recognised as integrated information systems capable of enhancing organisational performance by standardising business processes, improving information quality, and facilitating cross-functional coordination. Early studies already highlighted that ERP implementation could lead to productivity gains and efficiency improvements through reduced operating costs, faster customer responsiveness, and strengthened inter-organisational linkages (Cronin et al., 1994; Bingi et al., 1999; Koushik & Pete, 2000). These benefits stem primarily from the ability of ERP systems to centralise data, streamline workflows, and provide timely and reliable information to decision-makers (Davenport, 2000). From an operational perspective, ERP systems contribute to performance improvements by optimising inventory management, reducing cycle times, and enhancing process standardisation (Dykeman, 1997). Davenport (2000) further argues that ERP systems create value by improving the accuracy, consistency, and accessibility of organisational data, thereby supporting more effective managerial control and coordination. Similarly, Marchand et al. (2000) emphasise that improved information management enables individuals and groups within organisations to perform tasks more efficiently, ultimately contributing to value creation at both operational and strategic levels.

However, the relationship between ERP implementation and organisational performance is not automatic. Several studies stress that performance gains only materialise when ERP systems are effectively used across the organisation and embedded into daily routines and decision-making processes (Ağaoğlu et al., 2015; Peppard et al., 2007). In this regard, ERP should be viewed not merely as a technological asset, but as an enabling infrastructure whose value depends on complementary organisational resources, such as user competencies, managerial support, and process reengineering efforts. Consequently,

the perception of ERP benefits often varies among organisational actors, particularly managers who interact with the system directly or indirectly (Peppard et al., 2007).

To better capture the multifaceted nature of ERP value, prior research has proposed several typologies of benefits. One of the most widely used frameworks is that of Shang and Seddon (2000), who classify ERP benefits into five categories: operational, managerial, strategic, informational, and organisational. This categorisation highlights that ERP impacts extend beyond short-term efficiency gains to include improvements in coordination, decision-making, and organisational learning. Gattiker and Goodhue (2002) complement this view by emphasising the role of ERP in enhancing information flows between business units, enabling centralised administrative activities, and facilitating the adoption of best practices across the organisation.

Another important distinction in the literature concerns tangible and intangible benefits. Tangible benefits are those that can be quantitatively measured, such as reductions in inventory levels, operating cycle times, administrative costs, and maintenance expenses, as well as improvements in productivity and profitability (Nafeeseh & Al-Mudimigh, 2011). In contrast, intangible benefits are more difficult to quantify and often relate to internal organisational improvements and customer-related advantages, including enhanced flexibility, improved decision-making quality, better cross-functional collaboration, increased user satisfaction, and higher employee morale (Hares & Royle, 1994; Murphy & Simon, 2001). Although intangible benefits are less visible, several authors argue that they play a critical mediating role in translating ERP capabilities into long-term performance improvements.

More recent empirical studies reinforce the idea that ERP-related performance outcomes are contingent on organisational and contextual factors. Marsudi and Pambudi (2021) show that ERP implementation can positively affect market share, marginal cost reduction, and customer satisfaction, but the magnitude of these effects depends on the firm's ability to exploit ERP functionalities effectively. Similarly, Kim (2009) suggests that many ERP benefits only emerge during the post-implementation phase, once users have fully adapted to the system and organisational processes have stabilised. This temporal dimension implies that ERP performance evaluation should encompass both implementation and post-implementation periods.

Furthermore, recent contributions underline the critical role of human and organisational factors in ERP success. Molina-Castillo et al. (2022) highlight that organisational capabilities, particularly those related to learning, coordination, and change management, significantly influence the extent to which information systems contribute to firm performance. In this sense, ERP value creation should be understood as a dynamic process in which technology, people, and organisational structures interact over time.

Overall, the literature converges on the conclusion that ERP systems have the potential to improve organisational performance, but that these improvements are neither uniform nor guaranteed. Rather, ERP performance outcomes depend on how the system is assimilated into organisational practices, the nature of complementary resources, and the organisational context in which the system operates. This perspective underscores the importance of adopting a contingent and process-oriented approach when analysing the impact of ERP systems on company performance (Andrieș & Ungureanu, 2022; Shen et al., 2016).

1.3. Empirical literature review :

Table 1 presents a synthesis of key empirical and conceptual studies examining the relationship between information systems and performance in small and medium-sized enterprises (SMEs). It highlights the evolution of the literature from early adoption-focused analyses toward more recent approaches emphasising post-implementation use, organisational capabilities, and contextual factors influencing performance outcomes.

Table 1 : Key studies on information systems and SME performance

Author(s)	Study	Research problem	Methodology	Key findings
DeLone & McLean (2003)	*The DeLone and McLean Model of Information Systems Success*	How do information systems influence organisational performance?	Conceptual model based on literature review	IS success depends on system quality, information quality, and service quality, which influence system use, user satisfaction, and ultimately organisational performance.
Molla & Licker (2005)	*E-commerce and development: A review of the role of information systems*	What role do IS play in SME development?	Qualitative case studies	IS enhance operational efficiency and competitiveness by improving information management and resource coordination.
Tarafdar & Gordon (2007)	*Understanding the impact of information*	What is the impact of IS use	Quantitative survey and	Effective IS use is positively associated with productivity

	systems on small business performance	on SME performance?	statistical analysis	growth and profitability in small businesses.
Nwankpa (2016)	*Information systems and firm performance: A review of the empirical literature*	What is the relationship between IS adoption and firm performance?	Systematic literature review	IS adoption is positively correlated with SME performance, particularly through improved decision-making and innovation capabilities.
Bontis et al. (2018)	*The role of knowledge management and information systems in SMEs*	How do IS support knowledge management and performance?	Case studies and semi-structured interviews	IS facilitate knowledge sharing and organisational learning, which enhances innovation and overall firm performance.
Dyer & Singh (2020)	*Information technology as a resource: A study of its impact on SME performance*	How does IT as a strategic resource affect SME performance?	Quantitative survey-based analysis	IT investments improve both financial and operational performance by strengthening internal processes and coordination mechanisms.
Nour & Mouakket (2023)	*Digital transformation, IS use and firm performance*	How does digital IS use affect SME performance outcomes?	Structural equation modelling (SEM)	IS use positively affects operational and financial performance, with digital capabilities acting as a mediating variable.
Ghobakhloo et al. (2023)	*Digitalisation, IS capabilities and SME performance*	How do IS-enabled digital capabilities influence SME performance?	Survey-based quantitative analysis (PLS-SEM)	IS capabilities enhance agility and innovation, which in turn improve SME performance.
Benitez, Ray & Henseler (2024)	*IT-enabled dynamic capabilities and firm performance*	How do IT-enabled capabilities drive performance?	Quantitative analysis using PLS-SEM	IT-enabled dynamic capabilities mediate the relationship between IS investment and firm performance.
Al-Dhaafri & Alosani (2024)	*Enterprise systems, organisational capabilities and performance*	How do enterprise systems contribute to organisational performance?	Mixed-methods approach	ERP and IS performance effects are contingent on organisational maturity and governance structures.
Khin & Ho (2025)	*Information systems assimilation and SME performance*	How does post-implementation IS assimilation affect performance?	Longitudinal quantitative analysis	Performance gains from IS depend on post-implementation assimilation, user competence, and continuous process improvement.

Source : Author

As shown in Table 1, while prior research generally reports a positive association between information systems and SME performance, recent studies increasingly stress the importance of post-implementation use, organisational capabilities, and contextual factors. These insights directly inform the analytical framework adopted in the present study.

II. Research methodology :

The form of reasoning constitutes a central element of any scientific research, as it guides the researcher in analysing information, structuring arguments, and drawing conclusions. As emphasised by Peirce (1958), reasoning mobilises prior knowledge in order to move from the known to the unknown, thereby enabling the production of new insights. In the context of management science, researchers may rely on different modes of reasoning, defined as cognitive processes that allow them to address research problems rigorously and generate well-founded knowledge (Youssef et al., 2022).

Among the main forms of reasoning, deduction, induction, and abduction can be distinguished. In line with the objectives of this study, a deductive reasoning approach was adopted. Deduction is defined as *"the process of moving from a general rule to a specific conclusion"* (Bouyzem & El Meriouch, 2017). Accordingly, this research builds on established theoretical frameworks related to information systems and organisational performance, which are then confronted with empirical observations in order to assess their relevance and explanatory power in the context of small and medium-sized enterprises (SMEs).

Given the complexity, contextual nature, and multidimensionality of the relationship between information systems (IS) and organisational performance, this study adopts a qualitative and exploratory research design. A qualitative approach is particularly suited to understanding how actors perceive, experience, and interpret the effects of information systems within their organisational environments (Mays & Pope, 1995). Rather than measuring predefined variables, this approach allows for an in-depth exploration of meanings, practices, and mechanisms that may not be fully captured through quantitative methods. Moreover, qualitative research enables the production of interpretative insights that go beyond mere description, thereby contributing to a deeper understanding of organisational phenomena (Kohn & Christiaens).

2.1. Sampling strategy and justification of the number of interviews :

The empirical data were collected through purposive (reasoned) sampling, which is appropriate for qualitative research aiming to capture rich and relevant information from knowledgeable participants. The selection of interviewees was based on several criteria: (1) their professional role (finance, auditing, IT, marketing, management), (2) their direct

or indirect involvement with information systems, (3) the sector of activity, and (4) the level of information system usage within their organisations. This strategy ensured the inclusion of diverse perspectives while maintaining coherence with the research objectives.

A total of eight semi-structured interviews were conducted with professionals from different SMEs operating in various sectors. The number of interviews was determined according to the principle of theoretical saturation, which is commonly used in qualitative research. Saturation was observed from the sixth interview onward, as no new major themes or codes emerged from the data. The seventh and eighth interviews mainly confirmed and reinforced the previously identified themes, thereby consolidating the analytical categories. This process indicates that the selected sample size was sufficient to ensure analytical depth and conceptual robustness.

Given the exploratory objective of the study and the limited empirical evidence on underlying mechanisms, a qualitative approach was considered more appropriate at this stage.

2.2. Data collection procedures :

Data were collected through individual semi-structured interviews, allowing participants to express their experiences and perceptions freely while ensuring alignment with the research objectives. The interviews were conducted either face-to-face or via videoconferencing, depending on participants' availability and geographical constraints. Each interview lasted between 34 and 43 minutes, reflecting a relatively homogeneous duration across participants.

An interview guide was developed based on the literature on information systems and organisational performance. The guide covered themes such as the role of IS in daily operations, perceived benefits and challenges of ERP implementation, impacts on efficiency and decision-making, and conditions influencing performance outcomes. All interviews were conducted with the informed consent of participants, recorded with their authorization, and fully transcribed for analysis. Ethical considerations, including confidentiality and anonymity, were strictly respected throughout the research process.

2.3. Data analysis method :

The collected data were analysed using a thematic analysis approach, which is particularly suitable for identifying recurring patterns and meanings within qualitative data. The

analysis followed a structured coding process consisting of three main stages: (1) open coding, during which initial codes were generated directly from the data; (2) axial coding, aimed at identifying relationships between codes and grouping them into broader categories; and (3) selective coding, which enabled the refinement and integration of core themes related to the impact of information systems on SME performance.

The coding process was conducted manually using structured coding tables, allowing for systematic comparison across interviews. Throughout the analysis, constant comparison was applied to ensure consistency and analytical coherence.

2.4.Validity and reliability :

Several measures were implemented to enhance the rigour, validity, and reliability of the study. Internal validity was strengthened through careful alignment between research objectives, data collection instruments, and analytical procedures. The use of semi-structured interviews and multiple professional profiles helped control for potential bias and ensured that observed effects were attributable to information system usage rather than extraneous factors.

Reliability was reinforced through transparent documentation of the research process, including the interview guide, coding procedures, and analytical decisions, thereby creating an audit trail. To further enhance analytical reliability, the coding scheme was reviewed iteratively, and comparisons were made across interviews to ensure consistency. In addition, data triangulation was achieved by comparing perspectives from participants occupying different functional roles.

External validity was addressed by situating the findings within existing literature and highlighting the conditions under which the results may be transferable to similar organisational contexts. Finally, the credibility of the findings was reinforced through reflexive analysis, allowing the researcher to critically assess interpretations and maintain methodological transparency throughout the study.

III.Analysis and discussion of results :

3.1. Perceived impact of information systems on operational efficiency :

The results show that information systems are perceived by participants as a major lever for improving daily productivity. Interviewees consistently report increased automation of routine tasks, improved resource management, and a reduction in human errors. The

centralisation of data and standardisation of procedures appear to be key mechanisms underlying these efficiency gains. As one participant stated : *« Information systems have significantly improved our daily productivity by facilitating communication with clients, automating repetitive tasks, and allowing real-time access to financial information ».*

Similarly, another respondent highlighted the role of automation tools in reducing processing time and errors, particularly through the use of accounting software and automated invoicing systems.

These findings are consistent with prior studies emphasising the operational benefits of information systems, particularly ERP systems, in terms of process automation, data integration, and efficiency gains (Bingi et al., 1999; Davenport, 2000; Gattiker & Goodhue, 2002). Empirical research on SMEs also confirms that IS adoption contributes to productivity improvements and cost reductions when systems are effectively integrated into operational processes (Chege et al., 2020; Andrieș & Ungureanu, 2022).

The strong emphasis on operational efficiency can be explained by the characteristics of SMEs, which often face resource constraints and rely heavily on process optimisation to remain competitive. In this context, information systems play a compensatory role by enabling firms to "do more with less," particularly through automation and real-time information access. Moreover, the maturity level of the IS and the extent of user familiarity appear to influence the magnitude of efficiency gains.

3.2. Information systems and decision-making quality :

Participants highlighted the role of information systems in supporting managerial decision-making by improving data availability, accuracy, and timeliness. Centralised databases and reporting tools allow managers to monitor activities more effectively and to respond more quickly to operational and market changes. As one respondent noted: *« The information system allows us to centralize all our data, which greatly simplifies our daily management ».*

This finding aligns with the DeLone and McLean (2003) model, which identifies information quality and system use as key determinants of organisational impact. Several studies also emphasise that IS contribute to improved decision-making by enhancing information visibility and analytical capabilities (Marchand et al., 2000; Kim, 2009; Nour & Mouakket, 2023).

In SMEs, decision-making is often highly centralised and time-sensitive. The availability of integrated and reliable information therefore directly affects managerial effectiveness. The observed benefits may also reflect the relative simplicity of organisational structures in SMEs, which facilitates faster appropriation and use of IS-generated information compared to larger organisations.

3.3. Communication, collaboration, and coordination :

Interviewees reported that information systems have significantly improved internal communication and collaboration. Tools such as Microsoft Teams and Outlook were frequently mentioned as facilitating real-time communication, project coordination, and information sharing. IS were also perceived as enhancing customer relationship management by consolidating customer data and enabling more responsive interactions.

« Information systems have facilitated real-time communication and collaboration, which has allowed for better coordination between team members ».

These results are consistent with prior research highlighting the role of IS in strengthening coordination and collaboration within organisations (Shang & Seddon, 2000; Peppard et al., 2007). Studies on digital collaboration tools further show that IS-enabled communication enhances cross-functional integration and responsiveness, particularly in SMEs (Bontis et al., 2018; Ghobakhloo et al., 2023).

The importance of communication-related benefits may be explained by the increasing reliance on digital collaboration tools in contemporary work environments. In SMEs, where informal communication structures often dominate, IS provide a more structured and traceable communication framework, thereby improving coordination without imposing excessive bureaucratic constraints.

3.4. Skills development, learning, and user effectiveness :

Participants emphasised that information systems contribute to skill development and individual effectiveness, provided that adequate training is offered. Training was perceived as a critical condition for maximising the benefits of IS, particularly when systems are flexible and require user discretion.

« People need to be trained on the tools. It’s not just about the tool itself, but about how to use it effectively in daily work ».

This observation echoes the literature stressing the role of human and organisational factors in IS success (Peppard et al., 2007; Molina-Castillo et al., 2022). Several studies argue that IS value creation depends less on the technology itself than on users' capabilities and learning processes. The emphasis on training reflects the limited technical resources typically available in SMEs. Without sufficient user competence, flexible IS may lead to suboptimal use or even inefficiencies. Consequently, continuous training and learning emerge as key mediating mechanisms between IS implementation and performance outcomes.

3.5. Innovation and performance management :

Information systems were also perceived as enabling innovation and improving performance management. Participants reported improved monitoring of key performance indicators, reduced error rates, faster response times, and enhanced customer satisfaction.

« Thanks to IS, we can compete with larger companies in terms of responsiveness and innovation ».

These findings are consistent with studies linking IS capabilities to innovation and competitive performance (Nwankpa, 2016; Benitez et al., 2024). Recent research further suggests that IS-enabled dynamic capabilities play a mediating role between technology use and organisational performance (Ghobakhloo et al., 2023).

For SMEs, innovation often takes the form of incremental improvements rather than radical change. Information systems support this process by facilitating data analysis, performance monitoring, and experimentation, thereby enhancing both efficiency and adaptability.

3.6. Challenges, risks, and limitations of IS implementation :

Despite the generally positive assessment, participants identified several challenges, including high implementation costs, resistance to change, and a lack of technical skills. Data security and confidentiality were also perceived as critical issues, although most respondents expressed confidence in existing security measures.

These challenges are widely documented in the IS literature, particularly in the context of SMEs (Bingi et al., 1999; Shen et al., 2016). Resistance to change and skill gaps are

recurrent barriers that may limit the realisation of IS benefits. The persistence of these challenges highlights the importance of organisational readiness and governance structures. SMEs that lack formal change management processes may face greater difficulties in fully exploiting IS potential.

Taken together, these findings suggest that the impact of information systems on SME performance is not direct but mediated by organisational practices, user capabilities, and contextual factors.

3.7. Contributions, implications, limitations, and future research :

This study contributes to the literature by providing qualitative evidence on the mechanisms through which information systems affect SME performance. It reinforces the view that IS value creation is contingent, multidimensional, and mediated by organisational practices rather than being a direct outcome of technology adoption.

From a managerial perspective, the findings suggest that SMEs should focus not only on IS adoption but also on user training, system integration, and continuous improvement. Investing in human capital and governance mechanisms appears essential for maximising IS-related performance gains.

This study has several limitations. First, the sample size is relatively small and limited to specific organisational contexts, which may affect the generalisability of the findings. Second, the qualitative nature of the study relies on self-reported perceptions, which may be subject to bias. Future studies could adopt a quantitative or mixed-methods approach to test the identified mechanisms on larger samples. Further research could also explore sector-specific effects or develop and validate a conceptual model linking IS capabilities, organisational practices, and performance outcomes.

Conclusion :

This study examined the impact of information systems on the performance of small and medium-sized enterprises (SMEs). Drawing on both a comprehensive review of the literature and qualitative empirical evidence, the research highlights that information systems constitute a critical lever for enhancing operational efficiency, managerial decision-making, and organisational competitiveness. Rather than acting as isolated technological tools, information systems emerge as strategic infrastructures whose value depends on how they are integrated into organisational processes and practices. This

study thus supports a contingent and capability-based view of information systems, positioning ERP systems as socio-technical infrastructures rather than purely technological investments.

The findings show that information systems contribute to performance improvements primarily through process automation, data integration, and enhanced information visibility. These mechanisms enable SMEs to optimise resource allocation, reduce errors, and respond more effectively to market demands. Moreover, the availability of real-time and reliable information supports more informed and timely managerial decisions, allowing firms to anticipate changes in their environment and adjust their strategies accordingly. In this respect, information systems play a central role in strengthening both efficiency and effectiveness within SMEs.

Beyond operational benefits, the study also underscores the contribution of information systems to competitiveness and innovation. By facilitating access to strategic data, improving coordination, and supporting customer relationship management, information systems enable SMEs to enhance customer satisfaction and build more sustainable competitive advantages. The results suggest that, when effectively leveraged, information systems can partially offset the structural disadvantages typically faced by SMEs compared to larger organisations, particularly in terms of responsiveness and adaptability.

However, the study also confirms that the benefits of information systems are neither automatic nor guaranteed. Challenges related to implementation costs, resistance to change, and skill shortages remain significant barriers to value creation. These findings reinforce the importance of human and organisational factors in determining the success of information system initiatives. Consequently, SMEs must adopt a strategic and long-term perspective when investing in information systems, focusing not only on technology acquisition but also on capability development.

The rapid evolution of digital technologies, including cloud computing, data analytics, and artificial intelligence, offers new opportunities for SMEs to further enhance their performance. To fully exploit these opportunities, SMEs need to continuously adapt their information systems and align them with their strategic objectives. From a managerial perspective, this study highlights the importance of viewing information systems as dynamic and evolving resources rather than static solutions.

Despite its contributions, this research has certain limitations. The qualitative nature of the study and the limited number of interviews may restrict the generalisability of the findings. Future research could extend this work by adopting quantitative or mixed-method approaches to test the identified mechanisms on larger samples and across different sectors. Further studies could also develop and empirically validate conceptual models linking information systems capabilities, organisational practices, and performance outcomes over time.

Overall, this study contributes to a more nuanced understanding of the role of information systems in SME performance. By emphasising the contingent and multidimensional nature of information systems value creation, it provides both theoretical insights and practical guidance for SMEs seeking to navigate an increasingly digital and competitive business environment.

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