



THE ADOPTION OF ENTERPRISE RESOURCE PLANNING AND BUSINESS INTELLIGENCE SYSTEMS IN SMALL AND MEDIUM ENTERPRISES: A SYSTEMATIC LITERATURE AND EXPERTS' VERIFICATION

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ABSTRACT

Aim/Purpose	This study aims to identify the key factors influencing the adoption of integrated enterprise resource planning and business intelligence systems (ERPBI) in small and medium-sized enterprises (SMEs). Using the technology-organization-environment (TOE) framework, the study develops a conceptual framework explaining how technological, organizational, and environmental determinants shape ERPBI adoption.
Background	ERP and BI systems are increasingly interdependent: ERP systems integrate operational data, while BI systems convert that data into decision-support insights. In SMEs, adopting integrated ERPBI systems is especially challenging because of limited resources, technical expertise, and managerial capacity. Since existing studies often examine ERP and BI separately, an integrated, SME-focused framework is needed to better explain the combined adoption of operational and analytical capabilities.
Methodology	A two-phase research design was employed. First, a systematic literature review of peer-reviewed studies published between 2017 and 2025 was conducted to extract ERPBI adoption determinants. Second, ten domain specialists were selected through purposive sampling based on their experience in ERP, BI, SME digitalization, or information systems adoption. They evaluated the relevance

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	and importance of the identified determinants, which were then ranked using aggregated mean expert scores.
Contribution	This study consolidates fragmented ERP and BI adoption research into an integrated ERPBI perspective and proposes a validated TOE-based conceptual framework specifically tailored to SMEs.
Findings	The findings suggest that ERPBI adoption in SMEs is influenced by twelve technological, organizational, and environmental determinants: top management support, training, competitive pressure, communication, firm size, compatibility, relative advantage, perceived usefulness, artificial intelligence tools, big data analytics ability, cloud computing facility, and pandemic recovery planning. Rather than presenting these factors as definitive predictors of adoption success, the study synthesizes prior evidence and expert feedback to propose a structured framework for further empirical investigation.
Recommendations for Practitioners	For practitioners, the proposed framework should be viewed as a decision-support guide rather than a prescriptive implementation model. SME managers may use the framework to assess key readiness areas, including technological compatibility, organizational resources, managerial support, employee capability, vendor support, and external pressures. However, the relevance and priority of these factors may vary across SME size, sector, digital maturity, and resource availability.
Recommendations for Researchers	Future research should empirically test the proposed framework across different SME sectors and regions and investigate post-adoption outcomes using longitudinal approaches.
Impact on Society	Effective ERPBI adoption can strengthen SME resilience, promote sustainable business practices, and contribute to economic stability through enhanced digital transformation.
Future Research	Further studies are encouraged to explore emerging factors such as cybersecurity readiness, data governance, and responsible AI practices in ERPBI adoption.
Keywords	enterprise resource planning and business intelligence, TOE, technology adoption, business continuity, SMEs, SLR

INTRODUCTION

Since the COVID-19 pandemic, SMEs have operated in a more digitally accelerated and uncertain business environment, where competitiveness increasingly depends on the ability to adopt digital technologies, integrate operational data, and support data-driven decision-making. Peer-reviewed studies show that SMEs used digital technologies during the pandemic to maintain operations, respond to disruption, and support business continuity (Papadopoulos et al., 2020; Parker et al., 2023). More recent evidence also suggests that the pandemic accelerated SME digital transformation, although the extent of adoption varies across firms, sectors, and levels of digital readiness (Holl & Rama, 2024). In this context, integrated ERP and BI systems are increasingly relevant because ERP supports operational integration, while BI enables SMEs to transform operational data into managerial insights.

Recent literature shows that SME digital transformation is increasingly shaped by cloud-based ERP, business intelligence, big data analytics, and AI-enabled technologies, which support operational integration, data-driven decision-making, and organizational adaptability (Alsibhawi et al., 2023; Hong et

al., 2024). However, SMEs continue to face adoption barriers related to limited financial resources, digital skills, technical expertise, infrastructure readiness, and managerial capability (Kgakatsi et al., 2024). Recent studies also show that BI and analytics adoption remains strongly influenced by technological, organizational, and environmental conditions, including compatibility, top management support, competitive pressure, and organizational readiness (Al-Daraba et al., 2025; Alsibhawi et al., 2023). Therefore, a current review of ERPBI adoption in SMEs is needed to reflect recent developments in ERP, BI, cloud computing, big data analytics, and AI, rather than relying primarily on earlier ERP and BI adoption literature.

However, despite the acknowledged importance of ERPBI systems, existing literature reveals a critical gap in our understanding of their adoption, particularly in Small and Medium-sized Enterprises (SMEs) within the private sector (Mukred et al., 2023). Previous studies have largely focused on the technological aspects of ERPBI systems, with insufficient attention given to the organizational and environmental factors that significantly influence their successful adoption (Adjie Eryadi & Nizar Hidayanto, 2020; Hailu & Rahman, 2012). Moreover, there is a lack of comprehensive analysis that integrates determinants, theories, and models at both the organizational and individual levels, which is crucial for a holistic understanding of ERPBI adoption (Jaradat, AL-Hawamleh, & Hamdan, 2025; Llivisaca-Villazhañay et al., 2025).

The post-COVID-19 business environment has increased pressure on SMEs to adopt digital technologies to sustain operations, improve service delivery, and remain competitive. Holl and Rama (2024) found that, after the onset of the pandemic, 30.7% of manufacturing SMEs and 46.5% of service SMEs in their sample invested in digital technologies; among those adopters, cloud computing, big data, and artificial intelligence were also reported as important advanced technologies.

Combining the above systems, the Enterprise Resource Planning and Business Intelligence (ERPBI) system appears to be a complicated piece of computer software capable of transforming business processes (Aldossari & Mokhtar, 2020). This explains why organizations and industries increasingly opt for its implementation, with most illustrating enhanced performance through ERPBI usage in human resource planning, management control, and operational control. Recent ERP and BI studies show continued interest in how SMEs adopt digital systems to improve operational integration, organizational performance, and data-driven decision-making. ERP studies have examined SME adoption motivations, implementation experiences, cloud ERP adoption, and organizational performance, while BI studies have focused on adoption determinants and decision-support capabilities in SME contexts (Alsibhawi et al., 2023; Gessa et al., 2023; Zheng & Khalid, 2022).

More specifically, Oracle, an integrated solution comprising both ERP and BI systems, enables users, not limited to IT staff, to access financial and operational data in a timely, easy, efficient, and cost-effective manner (H. Chen et al., 2012). Hence, ERP or BI use in a stand-alone system is not all-inclusive and sufficient (Carton & Hofer, 2006; Ince et al., 2013), but their integration has been illustrated to be effective in promoting the capacity of the firm's business decision-making (Ain et al., 2019; H. Chen et al., 2012; Drelichowski, 2012; Radikovic, 2012).

Effective ERPBI adoption can support SME performance by improving operational integration, information visibility, and data-driven decision-making (Jaradat, AL-Hawamleh, & Hamdan, 2025). However, ERPBI adoption alone does not ensure business success; its value depends on how well the system is aligned with the firm's strategy, resources, capabilities, and market conditions. In this regard, a few studies have examined the factors influencing successful ERPBI adoption, with fewer studies providing evidence of its ability to sustain and sustainably drive business (Hailu & Rahman, 2012). Based on experts' feedback, ERPBI system adoption can enhance performance, reporting, and customer relations (Adjie Eryadi & Nizar Hidayanto, 2020; Azzaria et al., 2026; Erraoui & Nouha, 2026; Hou, 2013). Thus, firms must use varying ERPBI solutions to achieve sustainable, continuous outcomes.

While the technology-organization-environment (TOE) framework provides a useful foundation for explaining technology adoption, ERPBI adoption in SMEs requires a more context-specific application because it combines ERP-based operational integration with BI-based analytical decision-support capabilities (Alsibhawi et al., 2023; Hong et al., 2024). SMEs also face distinctive resource, capability, infrastructure, and environmental constraints that shape digital technology adoption differently from larger organizations (Hong et al., 2024; Sánchez et al., 2025). Therefore, this study refines the TOE framework by incorporating ERPBI-specific and emerging determinants, including AI tools, big data analytics ability, cloud computing facility, and pandemic recovery planning (Kgakatsi et al., 2024; Sánchez et al., 2025).

This study addresses these gaps by applying the TOE framework to examine the adoption of integrated ERPBI in SMEs, with a specific focus on the private sector. Through a systematic literature review of studies published between 2017 and 2025, followed by expert validation, the study identifies and ranks the technological, organizational, and environmental determinants influencing ERPBI adoption in SMEs. Accordingly, the study is guided by the following research question: What technological, organizational, and environmental determinants influence the adoption of integrated ERPBI systems in SMEs?

The contributions of this study are manifold. Firstly, it provides a comprehensive analysis of the factors influencing ERPBI adoption in SMEs, a sector that has been underrepresented in existing research. Secondly, it critically examines and synthesizes various frameworks and models, thus offering a nuanced understanding of ERPBI adoption in the private sector. This study is expected to significantly enhance the capacity of both academics and practitioners to develop theoretical and practical insights into ERPBI systems, ultimately contributing to the advancement of knowledge in this field.

This article examines ERPBI adoption among SMEs by synthesizing recent literature and expert validation findings. The paper is organized into seven sections. This section introduces the study background, research gaps, and research questions. The next section reviews the literature on ERPBI adoption and related theoretical frameworks. The Methodology section explains the systematic literature review and expert validation methodology, which is followed by the Findings and Discussion section. The fifth section outlines the study's contribution. The final section concludes the paper and proposes directions for future research.

LITERATURE REVIEW

ERP adoption has been widely examined in relation to implementation success, organizational readiness, management support, system compatibility, user training, and business process alignment (Beheshti et al., 2014; Fadelelmoula, 2018; Haddara, 2018; Salisu et al., 2021). However, much of this literature treats ERP as a standalone operational system. This limits its ability to explain contemporary SME contexts, where ERP is increasingly expected not only to integrate business processes but also to provide reliable data for analytics and decision-making (Aldossari & Mokhtar, 2020).

BI adoption research has similarly emphasized data quality, analytical capability, decision support, and competitive advantage (Alsibhawi et al., 2023; Nithya & Kiruthika, 2021). However, many BI studies assume that organizations already possess the digital infrastructure and data capabilities required for analytics. This assumption is less applicable to SMEs, where limited financial resources, technical expertise, infrastructure readiness, and managerial capacity may limit the effective use of BI.

Although ERP and BI are closely connected, prior studies often examine them separately. Recent ERP studies mainly emphasize ERP adoption, implementation processes, operational integration, organizational resources, and SME performance outcomes (Gessa et al., 2023; Hong et al., 2024). In contrast, recent BI studies focus more on analytics capability, information quality, decision support, and decision-making performance (Alsibhawi et al., 2023; Qatawneh, 2024). This separation creates a

gap in understanding ERPBI adoption in SMEs, where operational integration and analytical capability must develop together to support both business process efficiency and data-driven decision-making (Aldossari & Mokhtar, 2020; Aldossari & Mukhtar, 2019; Jaradat, AL-Hawamleh, & Hamdan, 2025).

Recent continuance adoption studies indicate that SME technology adoption should not be viewed only as an initial acceptance decision, but also as a sustained-use process. For ERP, Jo and Bang (2023) found that continuance intention is shaped by perceived usefulness, system quality, information quality, and top management support, showing that continued ERP use depends on both technological and organizational conditions. Similarly, Al-Hattami and Almaqtari (2023) argue that the success of digital systems in SMEs depends more on continued use than initial adoption, as initial use may be followed by rejection. This is relevant to ERPBI adoption because SMEs must not only adopt ERPBI systems, but also continue using them to support operational integration, analytics capability, and data-driven decision-making over time.

Existing ERPBI-related studies suggest that integrating ERP and BI may improve organizational performance, process efficiency, and decision-making (Aldossari & Mukhtar, 2019; Jaradat, AL-Hawamleh, & Hamdan, 2025). However, these studies remain limited in terms of SME focus, theoretical integration, and contextual coverage. In particular, many studies are conducted in large organizations or specific sectors, making it difficult to generalize their findings to SMEs, especially those operating in resource-constrained or developing-economy contexts (Jaradat, AL-Hawamleh, Altarawneh et al., 2025; Jaradat, AL-Hawamleh, & Hamdan, 2025; Lara-Pérez et al., 2025).

From a theoretical perspective, the TOE framework provides a useful basis for organizing ERPBI adoption determinants into technological, organizational, and environmental dimensions. Nevertheless, the literature indicates that TOE requires contextual refinement for ERPBI adoption, as integrated ERPBI systems encompass both operational and analytical capabilities (Chang, 2025). Emerging determinants, such as cloud computing facilities, big data analytics ability, AI tools, and pandemic recovery planning, further suggest the need for a current SME-focused framework.

Several adoption models can be used to examine ERPBI adoption, including the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technology-Organization-Environment (TOE). TAM explains technology acceptance mainly through individual perceptions such as perceived usefulness and perceived ease of use (Mukred et al., 2024). UTAUT extends this view by emphasizing performance expectancy, effort expectancy, social influence, and facilitating conditions as predictors of user acceptance and use (Al-Sayid & Kirkil, 2025).

Recent adoption studies show that TAM and UTAUT are commonly used to explain user acceptance, intention, and usage behaviour through perception-based constructs such as usefulness, effort expectancy, social influence, and facilitating conditions (Alsibhawi et al., 2023; Salimon et al., 2023). However, ERPBI adoption in SMEs is an organizational-level decision that depends not only on user perceptions but also on technological readiness, organizational resources, managerial support, compatibility, vendor support, and external pressures. Therefore, the TOE framework is more appropriate for this study, as recent SME technology adoption research shows that TOE provides a broader framework for examining technological, organizational, and environmental adoption conditions at the firm level (Faiz et al., 2024; Hong et al., 2024; Qatawneh, 2024).

Prior TOE-based studies have extended the framework to examine specific digital technologies such as business intelligence and analytics, cloud ERP, and digital transformation. For example, Mohammad et al. (2022) applied TOE to business intelligence and analytics usage, Qatawneh (2024) extended TOE to examine BI adoption and decision-making performance, and Hong et al. (2024) examined cloud ERP adoption in SMEs. However, these studies generally focus on a single technology domain, such as BI, analytics, or cloud ERP, rather than the integrated adoption of ERP and BI as a combined organizational capability. Therefore, the present study builds on prior TOE extensions

by integrating ERP, BI, cloud computing, big data analytics, AI tools, and pandemic recovery planning into one SME-focused ERPBI adoption framework. Its differentiation lies in treating ERPBI adoption as an organizational-level process that combines operational integration and analytical decision-support capabilities across the technological, organizational, and environmental dimensions.

Based on the reviewed literature, four gaps can be identified. First, ERP and BI adoption studies are often examined separately, leaving a limited understanding of integrated ERPBI adoption in SMEs. Second, earlier adoption studies focus mainly on initial adoption and give less attention to continuance or sustained use. However, continued use is essential for ERPBI systems to generate long-term value. Third, many existing studies focus on large organizations, specific sectors, or single technologies, making their findings less directly applicable to SMEs with limited resources and capabilities. Fourth, limited research has developed a TOE-based ERPBI framework that incorporates recent determinants such as AI tools, big data analytics ability, cloud computing facility, and pandemic recovery planning.

Accordingly, this study addresses these gaps by systematically reviewing recent ERP, BI, and ERPBI adoption literature from 2017 to 2025 and validating the identified determinants through expert evaluation. The contribution of the study is the development of a context-specific TOE-based framework that identifies and ranks the technological, organizational, and environmental determinants influencing ERPBI adoption in SMEs.

METHODOLOGY

An SLR is a thorough literature review method that underpins every research study and assists in the incremental advancement of science based on past findings (Al-Emran et al., 2018). SLRs are methods that synthesize empirical data to address a specific research question straightforwardly and reproducibly, by reviewing the entire body of published literature on the subject to evaluate their validity. In this regard, knowledge advancement builds on past work; thus, it is pertinent to understand the limits of knowledge to extend it further. Through the review of relevant literature, the literature on the subject can be assessed for its breadth and depth, and gaps can be highlighted and examined (Xiao & Watson, 2019). Stated clearly, the method presents references that are crucial to the subject under examination and enhance the research's significance.

Accordingly, this SLR takes the direction set out by Xiao and Watson (2019) for SLR guidelines. These guidelines are adhered to because they provide evidence-based support for the investigated issue and have been accepted in several SLRs. This review identified the critical factors influencing the adoption/acceptance of ERPBI among SMEs and proposes a framework that encapsulates the relationships among the determinants. The SLR was employed to achieve the purpose of the study, as it clearly lays out the relevant subject matter and sheds light on other relevant concepts. The methodological steps adhered to for the study framework development via SLR, and the feedback and evaluation of experts.

SLR was primarily used to identify the top factors affecting ERPBI adoption among SMEs, upon which a framework that included the factor relationships was developed. The SLR essentially clarified the subject matter in its entirety and made known relevant concepts. This involved factor extraction and categorization according to their frequency of being mentioned in the literature, and from which the most relevant top ones were scrutinized by experts to rank them. Moreover, the experts were asked to identify factors they believe should be included in the list.

An SLR is characterized by numerous features, which include: (1) pre-defined clear objectives, (2) pre-defined clear conditions to include/exclude literature work, (3) pre-determined search strategy in information systematic collection, (4) pre-defined characteristics conditions that the whole sources are clarified and is presented in the review without ambiguity, (5) quality and systematic evaluation of the reviewed studies, (6) determination of the excluded literature sources and justification behind

their exclusion, (7) information analysis/synthesis through the comparison of outcome from qualitative synthesis and meta-analysis, and lastly, (8) clarification of ambiguous and erroneous references of material.

Furthermore, an SLR has also been referred to as a literature review linking to a specific issue, making use of systematic and explicit techniques with which the publications are identified, selected through the issue, appraised, and data analysis in the publications, and reporting the whole outcome (Xiao & Watson, 2019).

Concerning the above, a systematic review protocol guideline that includes the contents and articulated methods used is enumerated below:

1. Databases to be searched with additional sources identification using scanning of bibliographies;
2. Terms/keywords to be applied in the selected search strategy;
3. Applied research scope (the duration of publication, language, and other details);
4. Screening process applied to titles and abstracts for their relevance based on the criteria of their inclusion or exclusion;
5. Data to be collected from the reviewed articles;
6. Data summary to be presented that is related to the initial objectives/issues of the literature review.

A systematic review generally needs a flow diagram that shows the number of publications highlighted and their status, and the number of excluded publications and their exclusion justification. Figure 1 presents a flow diagram to this effect.

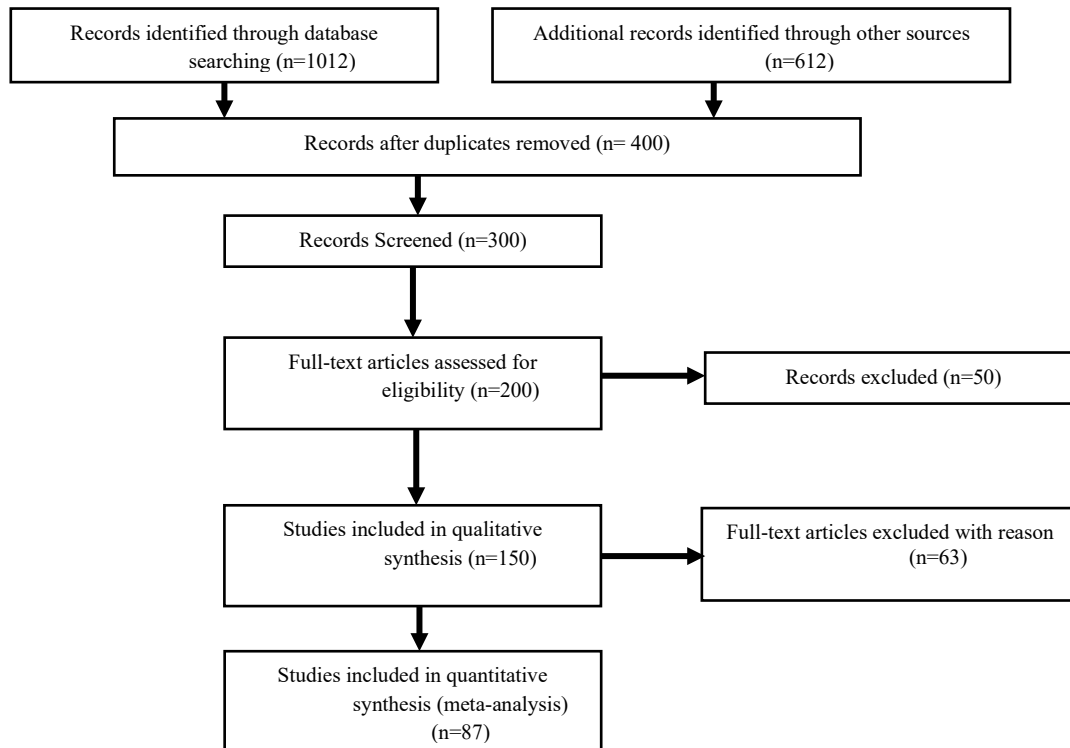


Figure 1. Systematic literature review framework

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is a widely recognized framework that provides guidelines to ensure clarity, transparency, and rigor in reporting systematic reviews and meta-analyses. It comprises a 27-item checklist and a four-phase flow diagram that guide researchers in reporting essential information, including the identification, selection, eligibility, and inclusion of studies. PRISMA's structured approach aids comprehensive synthesis of research findings and enhances the replicability and utility of systematic reviews and meta-analyses, making it a cornerstone of evidence-based research practices.

PRISMA was used in this study as a reporting and screening protocol to improve transparency in the identification, screening, eligibility assessment, and inclusion of studies. Although PRISMA was originally developed for health-related systematic reviews and meta-analyses, it has been widely adapted in non-medical fields to document the review process clearly and reproducibly (Al-Assaf et al., 2024). In this study, PRISMA was not used to impose biomedical assumptions or conduct a meta-analysis. Instead, it was used to structure the search and selection process, while the synthesis of findings followed a qualitative thematic approach suitable for the heterogeneous Information Systems adoption literature (Okoli, 2015; Xiao & Watson, 2019). Given the methodological diversity of the reviewed studies, which included qualitative, conceptual, survey-based, and structural equation modelling research, formal PRISMA criteria such as risk-of-bias assessment and summary measures were not applied. Instead, PRISMA was used to ensure transparency in the search, screening, and inclusion process. To better suit the information systems and management context, the review was also guided by concept-centric and systematic review principles from Webster and Watson (2002), Tranfield et al. (2003), and vom Brocke et al. (2009).

The PRISMA counts were not based on predetermined cut-offs. From the 400 records initially identified, 100 records were removed before screening because they were duplicates, non-peer-reviewed items, or clearly outside the review scope. The remaining 300 records were screened by title and abstract. At this stage, 100 records were excluded because they did not focus on ERP, BI, ERPBI, SMEs, or technology adoption determinants. Of the 200 reports sought for full-text assessment, 50 were not retained because the full text was unavailable, the study was not written in English, or the publication was an earlier/duplicate version of a more complete study. Therefore, 150 full-text articles were assessed for eligibility. Of these, 63 were excluded for the following reasons: not SME-focused, not adoption-focused, purely technical/system-design studies, lacking clear determinants, or insufficient methodological relevance. The final 87 studies were included for determinant extraction (Table 1).

Table 1. PRISMA-based study selection and screening process

PRISMA stage	Number	Reason
Records identified	400	Database and manual search results
Records removed before screening	100	Duplicates, non-peer-reviewed records, or clearly irrelevant records
Records screened	300	Title and abstract screening
Records excluded after screening	100	Not related to ERP, BI, ERPBI, SMEs, or adoption determinants
Reports sought for full-text assessment	200	Potentially relevant studies
Reports not retained before eligibility	50	Full text unavailable, non-English paper, or duplicate/earlier version
Full-text articles assessed	150	Eligibility assessment
Full-text articles excluded	63	Not SME-focused, not adoption-focused, purely technical, no determinants, or weak relevance
Studies included	87	Final studies used for determinant extraction

The following sub-sections detail the research questions, the search process, the criteria for including and excluding publications, bibliography management and document retrieval, and data extraction and analysis.

RESEARCH QUESTIONS

The research question in this systematic literature review is directed toward the critical issues relevant to the study topic. The main research question for this study is: “What technological, organizational, and environmental determinants influence the adoption of integrated ERPBI systems in SMEs?”

RESEARCH PROCESS

A comprehensive and systematic search strategy was employed to identify relevant studies on ERPBI adoption in SMEs. Searches were conducted across major academic databases, including IEEE Xplore, ACM Digital Library, Scopus, ScienceDirect, SpringerLink, and Google Scholar. The search strings were developed iteratively based on prior reviews and domain keywords and included combinations, such as:

“Enterprise Resource Planning” OR ERP) AND (“Business Intelligence” OR BI) AND (adoption OR acceptance OR implementation) AND (SME OR “Small and Medium Enterprises”)

as well as related variants (e.g., “ERP and BI integration”, “ERPBI adoption”, “ERP and BI framework”, “ERPBI and business continuity”). Boolean operators and truncation were applied where appropriate to maximize coverage. The systematic literature review was limited to peer-reviewed journal articles and conference papers published in English between 2017 and 2025. However, older sources were retained where they served as foundational theoretical or methodological references, such as those related to TOE, TAM, UTAUT, PRISMA, and systematic review methodology.

The research began by conducting a literature review of relevant publications and papers using online libraries and sites. This search process continued until the study was completed, using search engines across digital libraries such as IEEE Xplore, ACM Digital Library, Scopus, ScienceDirect, SpringerLink, and Google Scholar.

INCLUSION AND EXCLUSION CRITERIA

The screening process followed PRISMA guidelines and was conducted in three stages. First, duplicate records were removed. Second, titles and abstracts were screened to exclude studies that were unrelated to ERP, BI, ERPBI, or technology adoption. Third, full-text screening was performed to assess eligibility based on predefined inclusion and exclusion criteria.

Studies were included if they: (i) examined ERP, BI, or ERPBI adoption or implementation, (ii) focused on organizational-level adoption factors, frameworks, or determinants, and (iii) were peer-reviewed publications. Studies were excluded if they: (i) were non-scholarly or informal publications, (ii) did not address adoption-related factors, (iii) focused solely on technical system design without organizational relevance, or (iv) were duplicate or earlier versions of the same study. This structured screening ensured relevance, consistency, and alignment with the study objectives. For research publications that have appeared in more than one journal/conference, the complete version is included, while the rest are excluded.

QUALITY ASSESSMENT

To enhance methodological rigor, all studies retained after full-text screening were assessed for quality and relevance. Quality evaluation considered clarity of research objectives, methodological soundness, theoretical grounding, and relevance to ERPBI adoption. Studies that lacked sufficient methodological detail or theoretical contribution were excluded.

The PRISMA flow diagram was used to document the identification, screening, eligibility, and inclusion stages, ensuring transparency and reproducibility of the review process. Any discrepancies in article counts were resolved through iterative verification of database exports and screening logs. The final dataset of studies used for factor extraction and expert validation is therefore reproducible based on the documented search strategy and screening procedures.

EXPERTS VALIDATION

The expert validation phase involved ten domain specialists selected through purposive sampling. Selection was based on predefined criteria: (i) possession of a doctoral degree, (ii) a minimum of five years of academic or professional experience in information systems, ERP, BI, SME digitalization, or technology adoption, and (iii) evidence of relevant scholarly or professional expertise in the field. Potential experts were invited only after confirming that they met these criteria, rather than through convenience selection alone. They were contacted through professional academic networks and institutional affiliations. Participation was voluntary, informed consent was obtained before data collection, and all responses were anonymized.

To preserve confidentiality, individual expert profiles are not reported. In aggregate, the panel represented eight academic institutions across five countries and included seven assistant professors and three associate professors. Their areas of expertise included technology adoption, ERPBI, business intelligence, data analytics, artificial intelligence, SME digitalization, business continuity, software engineering, e-business, and information systems. This composition provided relevant academic and domain expertise for evaluating the determinants of ERPBI adoption.

Expert verification was administered through an individual evaluation process to reduce group influence and ensure independence of opinion. The ten domain specialists received the list of determinants, their definitions, and the proposed TOE classification individually. Each expert independently assessed the relevance and importance of the determinants using an evaluation form, without group discussion or disclosure of other experts' responses. Although the study did not apply a full Delphi method with multiple iterative rounds, it adopted the Delphi principle of independent expert judgement to minimize conformity bias and dominance effects. The experts' scores were then aggregated to rank the final determinants. This approach is consistent with expert-based validation procedures that emphasize structured judgement, anonymity, and aggregation of expert opinion to improve reliability and reduce dominance bias (Dalkey & Helmer, 1963; Linstone & Turoff, 1975).

Experts were invited via professional academic networks and institutional affiliations. Participation was voluntary, and informed consent was obtained prior to data collection. No personal or sensitive data were collected, and responses were anonymized. As the study involved expert opinion without human subject intervention or identifiable personal data, formal institutional ethics approval was not required, in line with standard research ethics guidelines.

The expert evaluation aimed to assess the conceptual importance and practical relevance of each factor rather than to mechanically reduce the factor list. Factors were rated on a 5-point Likert scale according to their perceived influence on ERPBI adoption. The inclusion threshold was based on both mean importance scores and collective expert agreement, ensuring that retained factors reflected substantive relevance rather than statistical convenience.

Expert input was integrated with the literature review findings in three steps. First, determinants identified from the systematic literature review were grouped under the TOE dimensions. Second, the ten experts reviewed the determinant list, definitions, and TOE classification to assess their relevance to ERPBI adoption in SMEs. Third, expert scores and feedback were used to confirm, refine, and rank the final determinants. Determinants retained in the framework were therefore supported by both literature evidence and expert validation.

FINDINGS AND DISCUSSION

The section includes a discussion of the findings gained by this SLR as follows.

BIBLIOGRAPHY MANAGEMENT AND DOCUMENT RETRIEVAL

The development of the review report involves citations and bibliographic management, where the endnote software V.X7.8 has been useful. The critical terms for searching for related studies using the journals/conferences' search engines involved abstract/title scanning, followed by downloading the retrieved studies for further assessment and data extraction.

The studies were scanned and searched from the search engines listed in Table 2.

Table 2. Number of articles from publishers

Digital library	Based on the defined key terms
IEEE Xplore	180
ACM Digital Library	55
Scopus	370
Science Direct	80
Springer Link	79
Google Scholar	248
Total	1012

Current versions of duplicated articles were selected, while older versions were excluded according to the exclusion criteria. The relevant materials were scanned and skimmed to identify the top related works. The total number of studies obtained following the review was 1012. After the review was conducted, the major selected studies were 87 (see Appendix A), and the extracted factors from these studies are listed in Appendix B.

DESCRIPTIVE ANALYSIS

This section presents the data resulting from the SLR and the analysis and deliberation of the experts' evaluation of the same. Table 3 summarizes the distribution of selected studies by publisher. Table 4 and Figure 2 present the yearly distribution of selected journal articles. Table 5 presents the yearly distribution of selected journal articles.

Table 3. Number of articles per publisher

Publisher	No of articles
Scopus	40
Web of Science	38
Other	7
Conferences	2

Table 4. Number of articles per country

No.	Country	No. of studies
1	Bangladesh	4
2	Canada	2
3	China	2
4	Croatia	2
5	Egypt	5
6	Ghana	4
7	Greece	1
8	Indonesia	4
9	Iran	2
10	Jordan	10
11	Kenya	1
12	Libya	1
13	Malaysia	3
14	Mexico	3
15	New Zealand	1
16	Nigeria	3
17	Norway	1
18	Pakistan	2
19	Portugal and Spain	2
20	Romania	2
21	Russia	1
22	Saudi Arabia	11
23	Slovenia	3
24	South Korea	1
25	Taiwan	1
26	Thailand	2
27	Tunisia	1
28	Turkey	1
29	United States	3
30	Yemen	1
31	Ecuador	1
32	Morocco	1
33	Philippines	1
34	United Arab Emirates	1
35	Multiple/unspecified	3

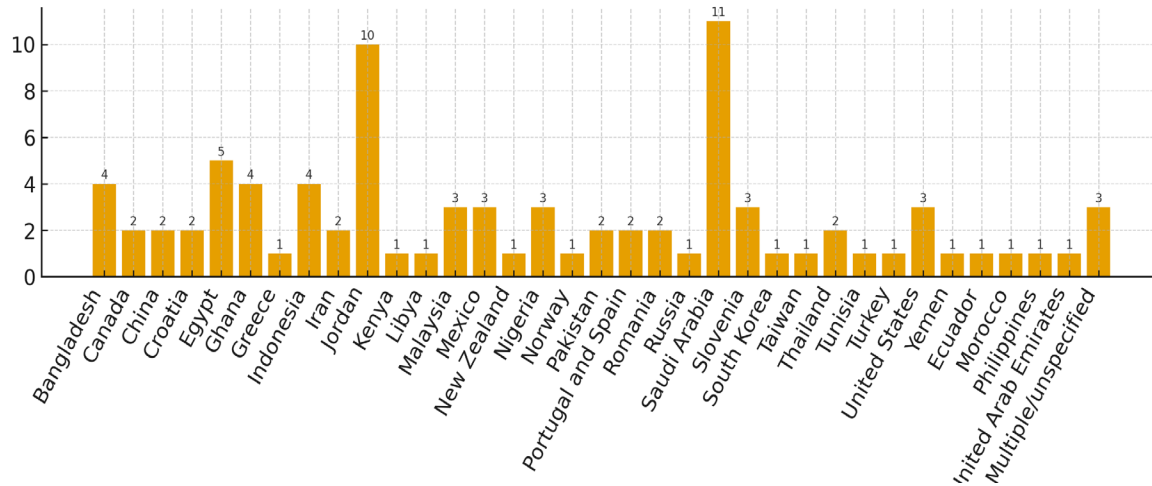


Figure 2. Distribution of articles by countries

Table 5. Number of journals per year

Year	No of articles
2025	8
2024	6
2023	7
2022	16
2021	10
2020	14
2019	14
2018	4
2017	8

FACTORS FREQUENCY

In this section, the results of the SLR data collected after the winnowing process are presented. The citations of the factors were numbered and used to provide their significant values following the strategy below:

1. Included factors had citations that are ≥ 4 , indicating their significance in affecting ERPBI adoption.
2. Excluded factors had citations that are < 4 , indicating their less significant in affecting ERPBI adoption.

In the above enumerated strategy, frequency can be referred to as the number of times that the factors were cited in literature, albeit this does not represent the factor's ordinary nature (Mukred et al., 2019). The SLR top-cited factors are tabulated in Table 6.

Table 6. Ranking of the extracted factors from systematic literature review

No	Factor	Frequency	Included
1	Top Management Support	16	Yes
2	Competitive Pressure	11	Yes
3	Business Process Characteristics	9	Yes

No	Factor	Frequency	Included
4	Complexity	8	Yes
5	Firm Size	8	Yes
6	Compatibility	6	Yes
7	Decision Making	6	Yes
8	Perceived Ease of Use	6	Yes
9	Communication	5	Yes
10	Organizational Culture	5	Yes
11	Relative Advantage	5	Yes
12	System Quality	5	Yes
13	Training	5	Yes
14	Firm Performance	5	Yes
15	Cost	4	Yes
16	Individual Performance	4	Yes
17	Infrastructure	4	Yes
18	Organizational	4	Yes
19	Perceived Usefulness	4	Yes
20	Skills	4	Yes
21	Technological Ability	4	Yes
22	Artificial Intelligence Tools	4	Yes
23	Big data Analytics Ability	4	Yes
24	Cloud Computing Facility	4	Yes
25	Pandemic Recovery Plan	4	Yes
26	Availability	3	No
27	Change Management	3	No
28	Effectiveness	3	No
29	Effort Expectancy	3	No
30	Experience	3	No
31	External Tech Support	3	No
32	Facilitating Conditions	3	No
33	Information Quality	3	No
34	Organizational Readiness	3	No
35	Performance Expectancy	3	No
36	Project Management	3	No
37	Social Influence	3	No
38	Triability	3	No
39	Accessibility	2	No
40	Age	2	No
41	Financial Support	2	No
42	Impact on Procurement	2	No
43	Innovativeness	2	No
44	Internal Process	2	No
45	Minimal Customization	2	No

No	Factor	Frequency	Included
46	Observability	2	No
47	Political Situation	2	No
48	Sales Growth	2	No
49	Satisfaction	2	No
50	Sensing Capability	2	No
51	Service Quality	2	No
52	User Involvement	2	No
53	Vendor Support	2	No

Experts' Ranking of Factors

The selection of significant factors and drivers of technology adoption is enriched by the experience and integrity of the experts involved in their selection (Mosweu et al., 2016). The expert's evaluation method has shown promising outcomes in prior studies when used to determine IS adoption-driving factors in firms of both developing and developed countries (Hawash et al., 2020; Mukred et al., 2019; Schneider & Sunyaev, 2016).

Accordingly, after the factors were identified and listed in the SLR process as factors that have the potential to affect ERPBI adoption, all of them were scrutinized by 10 experts in the field of IT, ERP, and BI technology adoption for assessment, endorsement, or recommending additional factors that were not included in the list, or excluding some that were included in the list.

The expert evaluation was administered in August 2025 using a structured ranking form created in Google Forms. The form listed the ERPBI adoption factors identified from the systematic literature review and asked experts to rate the importance of each determinant for ERPBI adoption in SMEs using a 5-point scale, ranging from 1 = very low importance to 5 = very high importance. Brief explanations of the determinants were provided to support consistent interpretation. The form was reviewed for clarity and completeness before distribution; however, it was not statistically validated because it was used for expert ranking and validation rather than psychometric scale development.

The experts' evaluation was criteria-based and was based on the influence of the factors on ERPBI adoption. Thus, the experts ranked 12 out of the 25 listed factors as the most relevant determinants of ERPBI adoption, as shown in Table 7.

Table 7. The list of factors evaluated by experts

No.	Factor	Mean out of 5	Included
1	Top Management Support	4.6	Yes
2	Competitive Pressure	4.4	Yes
3	Business Process Characteristics	1.7	No
4	Complexity	1.7	No
5	Firm Size	4.5	Yes
6	Compatibility	4.2	Yes
7	Decision Making	1.6	No
8	Perceived Ease of Use	2	No
9	Communication	4.7	Yes
10	Organizational Culture	1.4	No
11	Relative Advantage	4.4	Yes

No.	Factor	Mean out of 5	Included
12	System Quality	1.8	No
13	Training	3.9	Yes
14	Firm Performance	1.5	No
15	Cost	1.9	No
16	Individual Performance	1.6	No
17	Infrastructure	1.5	No
18	Organizational Readiness	1.6	No
19	Perceived Usefulness	4.3	Yes
20	Skills	1.7	No
21	Technological Ability	1.8	No
22	Artificial Intelligence Tools	4.4	Yes
23	Big data Analytics Ability	4.6	Yes
24	Cloud Computing Facility	4.6	Yes
25	Pandemic Recovery Plan	4.3	Yes

Table 8 displays the factors that have been identified through a comprehensive review of relevant literature and subsequently ranked by experts.

Table 8. List of factors recommended by experts who were listed in the SLR

No	Factor
1	Top Management Support
2	Training
3	Competitiveness Pressure
4	Communication
5	Firm Size
6	Compatibility
7	Relative Advantage
8	Perceived Usefulness
9	Artificial Intelligence Tools
10	Big Data Analytics Ability
11	Cloud Computing Facility
12	Pandemic Recovery Plan

The evaluation outcome identified 12 factors, which were deemed to have a significant influence on behavioral intention towards ERPBI adoption.

FINAL LIST OF FACTORS

The factors gathered from the selected articles were evaluated by the number of citations, after which the experts were provided with the top factors list for ranking. From the initial set of 25 factors identified through the SLR, experts collectively endorsed 12 factors as the most influential drivers of ERPBI adoption. Factors with lower mean scores were not discarded due to irrelevance but were

deprioritized to enhance framework parsimony and conceptual clarity. This reduction reflects expert judgment aimed at balancing comprehensiveness with practical usability of the proposed framework.

The factors driving successful ERPBI adoption, listed in Table 9, were classified into three dimensions. These factors answer the study's research question by identifying the technological, organizational, and environmental determinants influencing ERPBI adoption in SMEs.

Table 9. Summary of underlying factors

No.	Underlying factors	Dimension
1	Artificial Intelligence Tools	Technology
2	Perceived Usefulness	
3	Compatibility	
4	Big Data Analytics Ability	
5	Cloud Computing Facility	
6	Top Management Support	Organizational
7	Training	
8	Communication	
9	Relative Advantage	
10	Competitiveness Pressure	Environment
11	Firm Size	
12	Pandemic Recovery Plan	
13	Behavioral Intention to Adopt	Behavioral Intention
14	Business Continuity	Use

FRAMEWORK DEVELOPMENT

Adoption of technology does not depend solely on IT technical aspects; external factors, such as organizational and environmental characteristics, are also crucial in facilitating adoption (Ma et al., 2025). ERPBI system implementation involves a complex process; thus, such adoption is vulnerable to issues related to the organization and the individual, rather than to those related to technology. In the case of ERPBI, technological, organizational, and environmental aspects were highlighted. In this regard, when organizations are convinced that ERPBI system adoption is easy and useful, the issues arising at the organizational and individual levels will remain limited. Hence, the factors need to be examined and taken into serious consideration (Aldossari & Mokhtar, 2020).

A conceptual framework primarily aims to identify and define relevant concepts and their relationships, and it goes without saying that there is a need for a methodological structure to assist and improve ERPBI implementation. This paper proposes one. Such a structure is relevant to the principles, scientific analysis, and relationships highlighted in this study, and it helps determine and systematically introduce information (Ngulube, 2018). The conceptual structure generally describes the factors driving the adoption of an ERPBI system to facilitate the continuity and sustainability of organizations, divided into technology, organizational, and environmental factors. They promote the users' awareness and inclination towards system adoption. The proposed conceptual framework strengthens the analysis of ERPBI adoption determinants among SMEs by organizing the validated factors within the TOE dimensions.

Therefore, this study presents the technology, organization, and environment (TOE) framework, with numerous factors selected by experts and drawn from publications, to better understand the issues that influence users' adoption of the system in SMEs (see Figure 3). The framework illustrates the influence of five technological factors, namely artificial intelligence tools, perceived usefulness,

compatibility, big data analytics, and cloud computing facility; four organizational factors, namely top management support, training, communication, and relative advantage; and three environmental factors, namely competitiveness pressure, firm size, and pandemic recovery plan. These factors influence the adoption of ERPBI among SMEs. The adoption outcomes in organizations can be described using variables categorized within the TOE framework for SMEs, although this classification is a taxonomy and does not reflect an interconnected philosophical framework or take the place of a well-developed theory. The variables may differ from one case to another within the frameworks. Therefore, to maintain enrichment, other variables need to be assessed and evaluated before they can be included in the framework. This justifies the use of the TOE adoption model for SMEs in this paper's foundation. This study argues that adopting ERPBI promotes organizational continuity, following Lucić (2019), who stated that BI adoption rates enhance business continuity, and Githiga (2018), who evidenced that business continuity increases following ERP adoption. Nevertheless, research investigating the role of ERPBI in business continuity in the SME context is still scarce.

On the basis of the above, SMEs' ERPBI adoption is assumed to result in non-financial and financial measures, and thus, the relationship among the factors and the adoption of ERPBI for business continuity is tackled in this paper, with the focus placed on three dimensions (technology, organization, and environment) among the SMEs. The ERPBI adoption conceptual model for SMEs is illustrated in Figure 3.

ANALYTICAL INTEGRATION OF THE FINDINGS

The findings suggest that ERPBI adoption in SMEs should be understood as an integrated organizational decision rather than a purely technical adoption issue. This supports the use of the TOE framework because the final determinants reflect technological, organizational, and environmental conditions that jointly shape ERPBI adoption. The technological determinants, including perceived usefulness, compatibility, cloud computing facilities, big data analytics capabilities, and AI tools, indicate that SMEs evaluate ERPBI systems based on both operational fit and analytical value. This aligns with recent ERP and BI literature, which emphasizes that ERP supports operational integration while BI, analytics, and AI-enabled tools strengthen decision-making capability (Alsibhawi et al., 2023; Hong et al., 2024; Qatawneh, 2024).

The organizational determinants further indicate that ERPBI adoption depends on internal readiness. Top management support, training, communication, and relative advantage are important because SMEs often operate with limited resources, informal structures, and constrained technical expertise. These factors suggest that ERPBI adoption requires managerial commitment and employee capability, not only system availability. This finding is consistent with SME digital transformation studies, which show that organizational readiness and leadership support remain central to successful digital technology adoption (Gessa et al., 2023; Hong et al., 2024).

The environmental determinants show that ERPBI adoption is also shaped by pressures outside the firm. Competitive pressure, firm size, and pandemic recovery planning suggest that SMEs may adopt ERPBI to address market uncertainty, operational disruptions, and the need for business continuity (Alsibhawi et al., 2023; Bai et al., 2021). This strengthens the proposed framework by showing that ERPBI adoption is not only a route to efficiency but also a response to external pressures and continuity requirements.

The framework contributes to the literature by integrating ERP, BI, cloud computing, big data analytics, AI tools, and pandemic recovery planning within a single TOE-based structure. Unlike studies that examine these technologies separately, the proposed framework explains ERPBI adoption as a combined operational and analytical capability. However, the framework should be interpreted as a conceptual decision-support tool for assessing SME adoption, rather than as a causal model of implementation success or performance outcomes.

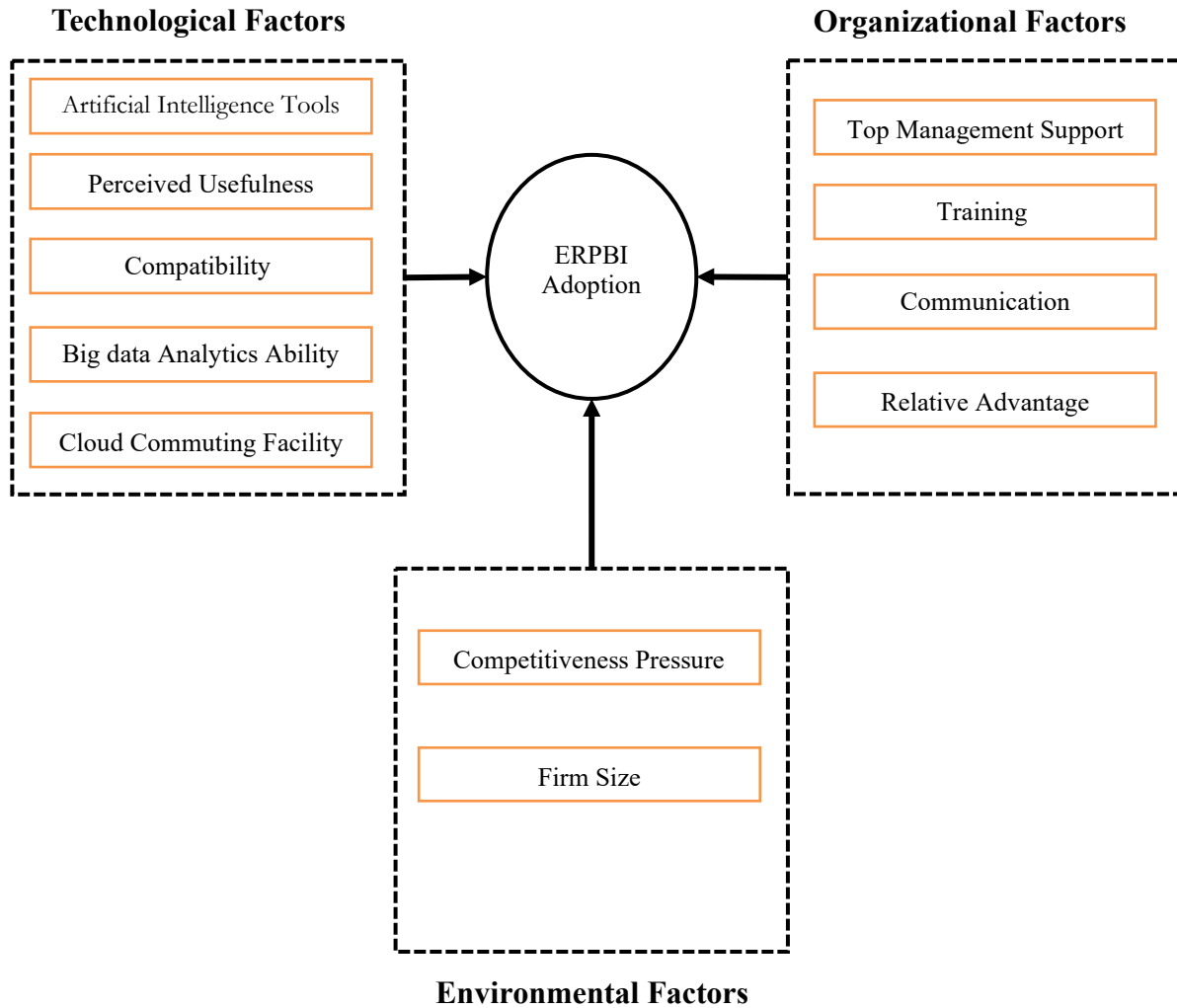


Figure 3. Conceptual framework for ERPBI adoption

CONTRIBUTION

This study is based on a systematic literature review of selected business and scholarly publications, from which the potential determinants of a specific technology adoption are highlighted. The top potential determinants are listed in the results, indicating that they may be the most important to some organizations but less so to others when it comes to ERPBI adoption and recognition. Hence, listing determinants based on organizational specifications and sector is required to generate better outcomes from ERPBI adoption initiatives. In addition, the analysis contributes to the decision-making process before the ERPBI is introduced into the organization – it provides market analysts and policymakers with a clearer picture of the different aspects of ERPBI determinants and their implementation success.

There are various determinants for ERPBI highlighted in this study that can be used to draw strategic interest (e.g., manager's innovativeness and management support). It is crucial for managers to understand and consider the major steps that contribute to the successful implementation of ERPBI in organizations, which is where the results contribution comes into play. For environmental determinants, it is pertinent for organizations to be aware of challenges and uncertainties in the environment

when implementing ERPBI. The study's results may also be useful for BI vendors and ERP providers in addressing issues of complexity and compatibility when investing in ERPBI, particularly for SMEs in developing countries.

Although the determinants identified in this study are grounded in established technology adoption literature, the contribution of this research lies in integrating ERP, BI, and emerging digital technology adoption factors within a unified TOE-based framework for SMEs. Unlike prior studies that often examine ERP, BI, cloud computing, big data analytics, or AI adoption separately, this study brings these factors together to explain ERPBI adoption as an organizational-level process shaped by technological, organizational, and environmental conditions. The proposed framework, therefore, provides a structured basis for understanding how SMEs evaluate ERPBI adoption in relation to operational integration, analytical capability, resource readiness, external pressure, and business continuity.

This study does not propose a new theory that replaces TOE. Instead, it develops a context-specific TOE-based ERPBI adoption framework for SMEs. The framework systematically builds on prior TOE extensions by retaining the three established TOE (technological, organizational, and environmental) dimensions, while incorporating ERPBI-specific determinants identified through a systematic literature review and expert validation. Unlike prior TOE-based studies that often examine ERP, BI, cloud computing, big data analytics, or AI adoption separately, this framework integrates these determinants to explain how SMEs evaluate ERPBI adoption as a combined operational and analytical system.

The practical purpose of the framework is to help SME managers, ERPBI vendors, consultants, and policymakers identify the main readiness conditions that may influence ERPBI adoption. However, the framework should be interpreted as a conceptual decision-support tool rather than a causal or predictive implementation model. Its boundary conditions are SMEs in the private sector, organizational-level adoption decisions, and pre-adoption or early adoption assessment. The framework does not claim to explain individual user acceptance, post-implementation performance, or adoption outcomes across all industries without further empirical testing.

CONCLUSION

This study examined ERPBI adoption in SMEs as a composite socio-technical capability that integrates operational data processing via ERP with analytical decision support via BI. Rather than treating ERPBI adoption as a purely technical decision or as the adoption of separate ERP and BI systems, the study conceptualized ERPBI adoption as an organizational-level process shaped by the combined influence of technological, organizational, and environmental conditions. The study contributes theoretically by offering an integrative and configurational treatment of ERPBI adoption within an extended TOE framework. The framework retains the core TOE dimensions while incorporating ERPBI-specific and emerging determinants, including AI tools, big data analytics ability, cloud computing facility, and pandemic recovery planning. In doing so, the study extends the application of TOE to better reflect the socio-technical realities of SMEs, where adoption depends not only on system usefulness and compatibility but also on managerial support, employee readiness, communication, competitive pressure, firm size, and continuity-related concerns.

The findings identified 12 determinants influencing ERPBI adoption in SMEs: artificial intelligence tools, perceived usefulness, compatibility, big data analytics capability, cloud computing facilities, top management support, training, communication, relative advantage, competitive pressure, firm size, and pandemic recovery planning. These determinants show that ERPBI adoption requires alignment between digital infrastructure, organizational readiness, and external environmental pressures. Practically, the proposed framework can support SME managers, ERPBI vendors, consultants, and policymakers in assessing the readiness conditions that may influence ERPBI adoption. It provides a struc-

tured basis for identifying whether SMEs possess the technological capabilities, organizational resources, and environmental preparedness needed to adopt ERPBI systems effectively. However, the framework should be interpreted as a conceptual adoption framework rather than a fully tested causal model of implementation success or organizational performance.

This study has several limitations. First, the proposed framework is conceptual and based on a systematic literature review and expert validation; therefore, it does not empirically test causal relationships between the identified determinants and ERPBI adoption outcomes. Second, although expert validation strengthened the relevance of the determinants, the number of experts was limited, and their assessments may not fully represent all SME sectors or country contexts. Third, the reviewed studies were limited to selected databases, English-language publications, and the period from 2017 to 2025, which may have excluded relevant earlier or non-English studies. Finally, because ERPBI adoption may vary across industries, firm sizes, digital maturity, and national contexts, the generalizability of the framework requires further empirical testing.

Future research should empirically test the framework across different SME sectors, countries, and adoption stages to examine how the identified determinants influence ERPBI adoption and continued use over time.

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APPENDIX A: ARTICLES OF THE SYSTEMATIC LITERATURE REVIEW

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
1	(Hasan et al., 2019)	Enterprise Information Systems	Factors affecting the post-implementation success of enterprise resource planning systems: A perspective of business process performance	600 questionnaires to our listed ERP-experienced employees and requested them in a formal letter to complete the questionnaire	business process performance	No Model	2019	Bangladesh
2	(AlBar & Hoque, 2019)	Information Development	Factors affecting cloud ERP adoption in Saudi Arabia: An empirical study	144 respondents, CEO, Business Operation Manager, and IS Managers of 200 sample organizations	organizations	Diffusion of Innovation theory (DOI) and Technology-Organization-Environment (TOE) framework	2017	Saudi Arabia
3	(Aljawarneh & Al-Omari, 2018)	International Journal of Business and Management	The role of enterprise resource planning systems ERP in improving customer relationship management CRM: An empirical study of the Safeway Company of Jordan	210 were appropriate for statistical analysis	SMEs	No Model	2018	Jordan
4	(Fadellelmoula, 2018)	Interdisciplinary Journal of Information, Knowledge, and Management	The effects of the critical success factors for ERP implementation on the comprehensive achievement of the crucial roles of information systems in the higher education sector	The total number of used responses was 219	Higher Education	No Model	2018	Saudi Arabia
5	(Uddin et al., 2020)	Journal of Open Innovation: Technology, Market, and Complexity	A study of the adoption and implementation of Enterprise Resource Planning (ERP): Identification of moderators and mediator	The study used 225 replies collected through a self-administered sampling		UTAUT	2019	Bangladesh

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
6	(AlMuhayfith & Shaiti, 2020)	Journal of Open Innovation: Technology, Market, and Complexity	The impact of enterprise resource planning on business performance: With the discussion on its relationship with open innovation	A survey is constructed and sent to 200 Saudi SMEs that adopted the ERP systems	SMEs	No	2020	Saudi Arabia
7	(Aremu et al., 2020)	International Journal of Information Systems and Social Change	The impacts of enterprise resource planning system adoption on firm's performance among medium size enterprises	Of the 658 questionnaires distributed, only 355 were usable.	SMEs	No	2020	Nigeria
8	(Shafi et al., 2019)	IEEE Access	Measuring performance through enterprise resource planning system implementation	Questionnaire		No	2019	Pakistan
9	(Jayeola et al., 2020)	International Journal of Economics & Business Administration	Contextual factors and strategic consequences of cloud Enterprise Resource Planning (ERP) adoption in Malaysian manufacturing SMEs: A conceptual framework	382 respondents of SMEs in Malaysia	SMEs	Technology-Organization-Environment (TOE) model, Task Technology Fit (TTF) model, and Resource-Based View (RBV)	2020	Malaysia
10	(Hababbeh & Obidat, 2021)	International Journal of E-Services and Mobile Applications	Examining the factors influencing the intention to adopt cloud ERP systems by SMEs in Jordan	Using a questionnaire, data were collected from 394 subjects	SMEs	TAM	2021	Jordan
11	(Aldossari & Mokhtar, 2020)	International Journal of Innovation	A model to adopt enterprise resource planning (ERP) and business intelligence (BI) among Saudi SMEs	Qualitative approach and the sample of the study comprised 30 experts from the Saudi private sector, who were involved in ERPBI	SMEs	UTAUT/TOE	2020	Saudi Arabia

Adoption of Enterprise Resource Planning and Business Intelligence Systems

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
12	(Soliman & Noorliza, 2020)	Journal of Information Technology Management	Explaining the competitive advantage of enterprise resource planning adoption: Insights Egyptian higher education institutions	Self-administered questionnaire 112 HEIs in Egypt	Higher Education	No	2020	Egypt
13	(Kulikov et al., 2020)	Entrepreneurship and Sustainability Issues	Challenges of Enterprise Resource Planning (ERP) implementation in agriculture	Questionnaire surveys of executives of 55 companies			2020	Russia
14	(Althunibat et al., 2019)	IEEE	The acceptance of using Enterprise Resource Planning (ERP) system in higher education: A case study of Jordanian universities	Questionnaires with 220 usable responses were received		UTAUT	2019	Jordan
15	(Karia & Soliman, 2017)	International Journal of Advanced and Applied Sciences	Factors affecting Enterprise Resource Planning (ERP) systems adoption among higher education institutions in Egypt	Conceptual framework		TOE	2017	Egypt
16	(Marsudi & Pambudi, 2021)	Journal of Economics, Business, and Accountancy Ventura	The Effect of Enterprise Resource Planning (ERP) on performance with information technology capability as moderating variable	A total of 184 questionnaires were distributed to them.		No	2021	Indonesia
17	(Mahmud et al., 2017)	Information Systems	To use or not to use: Modelling end user grumbling as user resistance in pre-implementation stage of enterprise resource planning system	A survey questionnaire was distributed to 221 respondents from five different manufacturing industries in Bangladesh.		No	2017	Bangladesh

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
18	(Owiti & Ondiek, 2018)	EPRA International Journal of Research and Development (IJRD)	Enterprise resource planning; making ERP a success in the banking sector – Case study of KCB branches in western region of Kenya	A hypothetical structure has been produced after effects of the examination demonstrate that the instrument is dependable to quantify the develops		No	2021	KENYA
19	(Saygili et al., 2017)	International Journal of Enterprise Information Systems	End users' perceptions of critical success factors in ERP applications	Data was collected 128 ERP end-users.		NO	2017	Turkey
20	(Rodriguez et al., 2020)	European Journal of Innovation Management	Enterprise resource planning and business model innovation: Process, evolution and outcome	The sample consisted of 104 organizations from different industries			2020	Norway
21	(Ghani et al., 2019)	International Journal of Financial Research	Examining enterprise resource planning post implementation and employees' performance in small and medium enterprises using DeLone and McLean's Information System Success Model	Using a questionnaire survey on 117 respondents		DeLone and McLean	2019	
22	(Ruivo et al., 2017)	Industrial Management & Data Systems	Enterprise resource planning and customer relationship management value	We targeted 400 firms in Portugal and Spain with the questionnaire		No	2017	Portugal and Spain
23	(Sardjono & Perdana, 2019)	IEEE Explore	Using ISO-9126 and SECI Model for enhancing enterprise resource planning implementation strategic in broadcasting company	This study used a questionnaire with a 5-point Likert scale and was distributed to 400 respondents			2019	Indonesia

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
24	(Menon, 2019)	International Journal of Business and Management	Critical challenges in Enterprise Resource Planning (ERP) implementation	The study was conducted in a Canadian case organization using twenty interviews from members of four project role groups of senior leaders, project managers, project team members, and business users	Oil and Gas		2019	Canada
25	(Bamufleh et al., 2021)	International Journal of Enterprise Information Systems	User acceptance of Enterprise Resource Planning (ERP) systems in higher education institutions: A conceptual model	Based on works from literature and authors' observations of the PeopleSoft system (ERP system) implementation at Yanbu University College (YUC)	Education	UTAUT	2021	Saudi Arabia
26	(Yazdi et al., 2020)	International Journal of Business Information Systems	Road map for the implementation of enterprise resource planning: A grey relational analysis approach	Literature Review – Delphi study	insurance industry	no	2020	Iran
27	(Z. J. H. Tarigan et al., 2021)	Sustainability	Impact of Enhanced Enterprise Resource Planning (ERP) on firm performance through green supply chain management	135 questionnaires are considered valid for analysis	manufacturer	no	2021	Indonesia
28	(Z. Tarigan et al., 2021)	International Journal of Data and Network Science	Key user ERP capability maintaining ERP sustainability through effective design of business processes and integration data management	The study obtained data that can be further processed from 77 manufacturing companies in East Java by purchasing an ERP or self-development packet, by distributing questionnaires and interviews	manufacturing companies	no	2021	Indonesia
29	(Zamzeer et al., 2020)	International Journal of Business Information Systems	Determinants of cloud ERP adoption in Jordan: An exploratory study	This qualitative, exploratory study gathers data from 13 different SMEs	SMEs	TOE	2020	Jordan

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
30	(Grandón et al., 2020)	IEEE Explore	Validation of an ERP system acceptance model among Latin American students: A longitudinal study in Chile and Colombia	The research model was empirically tested using data collected from students enrolled in ERP courses in two public universities	Education	TAM	2020	USA
31	(Ain et al., 2019)	Information Development	Elucidating the determinants of business intelligence adoption and organizational performance	Mixed method approach with A list of SMEs in Thailand was compiled from an online database, from which a list of 220 SMEs was selected using convenience sampling based on the location of the SMEs	SMEs	TOE	2020	Thailand
32	(Puklavec et al., 2018)	Industrial Management & Data Systems	Understanding the determinants of business intelligence system adoption stages: An empirical study of SMEs	181 small and medium enterprises (SMEs)	SMEs	DOI and TOE	2018	Slovenia
33	(Popovič et al., 2019)	<i>Industrial Management & Data Systems</i>	Justifying business intelligence systems adoption in SMEs: Impact of systems use on firm performance	Drawing on the data collected from 181 SMEs	SMEs	No	2019	Slovenia
34	(Lucić, 2019)	Annals of Disaster Risk Sciences: ADRS	Business intelligence and business continuity: Empirical analysis of Croatian companies	A survey that comprised a sample size of the 1000 highest grossing companies operating in Croatia, along with a short comparison to the initial survey from 2010/2011	SMEs	No Model	2017	Croatia
35	(Hou, 2018)	International Journal of Business Continuity and Risk Management	Examining users' intention to continue using business intelligence systems from the perspectives of end-user computing satisfaction and individual performance	The empirical data collected from 330 users in the Taiwanese electronics industry	SMEs	No	2018	Taiwan

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
36	(Becerra-Godínez et al., 2020)	Bulletin of Electrical Engineering and Informatics	Identifying the main factors involved in business intelligence implementation in SMEs	Literature review	SMEs	No	2019	Mexico
37	(Owusu et al., 2017)	The Journal of Internet Banking and Commerce	Determinants of business intelligence systems adoption in developing countries: An empirical analysis from Ghanaian banks	A sample of data from 130 Bank executives were subjected to partial least squares structural equation modelling (PLS-SEM)	Banks	Diffusion of Innovations Theory, Technology-Organization-Environment framework, and the Institutional Theory	2017	Ghana
38	(Bhatiasevi & Naglis, 2020)	Information Development	Elucidating the determinants of business intelligence adoption and organizational performance	Of the 220 companies that were approached and that completed the field survey, 180 questionnaires were deemed useful	SMEs	Technology-organization-environment framework and the balance scorecard approach	2020	Thailand
39	(Stjepić et al., 2019)	International Journal of Economics and Management Engineering	Technology, organizational and environmental determinants of business intelligence systems adoption in Croatian SME: A case study of medium- sized enterprise	The case study has been conducted in a Croatian medium-sized company that deals with various vehicle services	SMEs	Technology-Organization-Environment (TOE) theoretical framework	2019	Croatia
40	(Ahmad et al., 2021)	IEEE Access	Statistical assessment of business intelligence system adoption model for sustainable textile and apparel industry	Data were collected using a survey with self-administered questionnaires from decision-makers with authoritative designations in the textile and apparel industry, academia, and software companies	textile and apparel industry	Technology-Organization-Environment (TOE)	2021	Saudi Arabia
41	(Richards et al., 2019)	Journal of Computer Information Systems	Business intelligence effectiveness and corporate performance management: An empirical analysis	Data were collected from a global survey of senior managers in 337 companies	SMEs	Information processing theory	2019	Canada

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
42	(Jalil et al., 2019)	International Conference on Machine Learning, Big Data and Business Intelligence (MLBDBI)	Adoption of business intelligence - Technological, individual and supply chain efficiency	A survey questionnaire of IT managers in 162 multinational companies in Malaysia	SMEs	No	2019	Malaysia
43	(Jahantigh et al., 2019)	International Journal of Business Information Systems	A conceptual framework for business intelligence: Critical success factors	The statistical data was also collected from 78 large and medium-sized companies.	SMEs	No	2019	Iran
44	(Grublješić et al., 2019)	Journal of Organizational and End User Computing (JOEUC)	The shift to socio-organizational drivers of business intelligence and analytics acceptance	Survey of 2,173 medium- and large-sized business organizations	SMEs	TAM , UTAUT and IDT	2019	Slovenia
45	(Yiu et al., 2021)	International Journal of Production Research	The impact of business intelligence systems on profitability and risks of firms	Sample of 278 manufacturing firms in the US	Manufacturing	NO	2021	United States
46	(Yiu et al., 2020)	Industrial Management & Data Systems	Business intelligence systems and operational capability: An empirical analysis of high-tech sectors	Financial data for a sample of 144 US firms	high-tech sectors	No	2020	United States
47	(Owusu, 2017)	Cogent Business & Management	Business intelligence systems and bank performance in Ghana: The balanced scorecard approach	Survey questionnaires from the universal banks in Ghana were 130 samples	Banks	No	2017	Ghana
48	(Owusu et al., 2020)	Association for Information Systems	Exploring the critical success factors for cloud BI adoption among Ghanaian SMEs	A qualitative study of 17 respondents from various SMEs	SMEs	NO	2020	Ghana

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
49	(Y. Chen & Lin, 2021)	International Journal of Information Management	Business intelligence capabilities and firm performance: A study in China	A total of 293 questionnaires with clear instructions were sent out	SMEs	No	2021	China
50	(Masa'Deh et al., 2021)	International Journal of Hospitality & Tourism Administration	The impact of business intelligence systems on an organization's effectiveness: The role of metadata quality from a developing country's view	225 usable responses containing 37 items were analyzed using structural equation modeling (SEM)	hotels	No	2021	Jordan
51	(Jaradat et al., 2024)	Journal of Decision Systems	Factors influencing business intelligence adoption: Evidence from Jordan	Questionnaire with 22 Jordanian insurance companies, 153 respondents	insurance companies	No Model	2022	Jordan
52	(Mohammad et al., 2022)	Journal of Open Innovation: Technology, Market, and Complexity	Business intelligence and analytics (BIA) usage in the banking industry sector: An application of the TOE framework	120 employees of Jordan Arab Bank	Banks	TOE	2022	Jordan
53	(Lateef & Keikhosrokiani, 2023)	Journal of the Knowledge Economy	Predicting critical success factors of business intelligence implementation for improving SMEs' performances: A case study of Lagos State, Nigeria	Survey, 165	SMEs	No Model	2022	Nigeria
54	(Zoubi et al., 2023)	Uncertain Supply Chain Management	An extension of the diffusion of innovation theory for business intelligence adoption: A maturity perspective on project management	Survey 112	SMEs	No Model	2023	Jordan

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
55	(Alsibhawi et al., 2023)	Applied Sciences	Business intelligence adoption for small and medium enterprises: Conceptual framework	Conceptual framework	SMEs	UTAUT and TAM	2023	Libya
56	(Ciocodeică et al., 2022)	Sustainability	The degree of adoption of business intelligence in Romanian companies – The case of sentiment analysis as a marketing analytical tool	Ten marketing specialists, while the quantitative research utilized a questionnaire applied to a sample of 108 respondents	SMEs	No Model	2022	Romani
57	(Poba-Nzaou et al., 2022)	International Journal of Business Intelligence Research	Business intelligence adoption and implementation risk in SMEs: Insights from an empirical study in Tunisia	Single-case study approach, focusing on a small manufacturing firm in Tunisia, Africa, that successfully adopted a Business Intelligence (BI) system	SMEs	No Model	2022	Tunisia
58	(Zitha, 2023)	Journal of Theoretical and Applied Information Technology	A model for the business intelligence system acceptance in the South African banking sector	Two hundred and twenty (220) respondents completed the questionnaire accurately in this study	Banks	UTAUT	2023	Africa
59	(Fu et al., 2022)	Axioms	Critical factors considered by companies to introduce business intelligence systems	45 questionnaires were distributed, and 22 were collected.	Public Organizations	No Model	2022	Taiwan
60	(Rahman, 2023)	FinTech	The effect of business intelligence on bank operational efficiency and perceptions of profitability	The study collected data from 259 responses obtained from 27	Banks	No Model	2023	Bangladesh

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
61	(Huang et al., 2022)	Information Processing & Management	The impact of business intelligence on marketing with emphasis on cooperative learning: Case study on the insurance companies	Survey of 186 employees from insurance companies	Insurance Companies	No Model	2022	China
62	(Alsaad et al., 2022)	Journal of Innovation & Knowledge	Linking business intelligence with the performance of new service products: Insight from a dynamic capabilities perspective	Survey 583 service firms' marketing and sales directors	Firms	Dynamic capability theory	2022	Egypt
63	(Lutfi et al., 2022)	Sustainability	Antecedents and impacts of enterprise resource planning system adoption among Jordanian SMEs	A mixed-method approach is used for data collection, which includes both quantitative and qualitative methods, 102 respondents	SMEs	TOE an DOI	2022	Jordan
64	(Tongsuksai et al., 2023)	IEEE Access	Influential characteristics and benefits of Cloud ERP adoption in New Zealand SMEs: A vendors' perspective	Interview with 6 ERP vendors	SMEs	TOE & UTAUT	2023	New Zealand
65	(Bialas et al., 2023)	Sustainability	Digitalization of the healthcare supply chain through the adoption of Enterprise Resource Planning (ERP) systems in hospitals: An empirical study on influencing factors and cost performance	Survey with 107 respondents	Hospitals	TOE	2023	Greece
66	(Mukred et al., 2023)	Journal of Information Science	Enterprise resource planning adoption model for well-informed decisions in higher learning institutions	Online survey questionnaire distributed to 364 respondents	Education	TOE & D&M IS Success	2023	Yemen

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
67	(Jo, 2023)	Journal of the Knowledge Economy	Key factors influencing loyalty and satisfaction toward ERP: Mediating role of flow	Survey to 232 individuals	SMEs	TAM	2022	South Korea
68	(Salih et al., 2022)	Sustainability	The CSFs from the perspective of users in achieving ERP system implementation and post-implementation success: A case of Saudi Arabian food industry	Survey to 144 respondents	Food Industry	No Model	2022	Saudi Arabia
69	(Jayeola et al., 2022)	Sustainability	The mediating and moderating effects of top management support on the cloud ERP implementation–financial performance relationship	Survey to 204 respondents	SMEs	No Model	2022	Malaysia
70	(Akrong et al., 2022)	Heliyon	Evaluation of organizational climate factors on tax administration enterprise resource planning (ERP) system	Survey to 555 respondents	Public Organizations	DeLone and McLean	2022	Ghana
71	(Busto Parra et al., 2022)	Engineering Management Journal	Combining ERP, lean philosophy and ICT: An Industry 4.0 approach in an SME in the manufacturing sector in Spain	Case study approach	SMEs	No Model	2022	Spain
72	(Qureshi, 2022)	Sustainability	Evaluating Enterprise Resource Planning (ERP) implementation for sustainable supply chain management	Combination of literature review and expert input from subject matter experts	SMEs	No Model	2022	Saudi Arabia
73	(Almajali et al., 2022)	Cogent Social Sciences	Enterprise resource planning success in Jordan from the perspective of IT-Business strategic alignment	A total of 388 questionnaires were mailed to these executives, and 358 valid questionnaires were used	SMEs	DeLone and McLean	2022	Jordan

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
74	(Jaradat, AL-Hawamleh, & Hamdan, 2025)	Digital Policy, Regulation and Governance	Examining the integration of ERP and BI in the industrial sector and its impact on decision-making processes in KSA	Quantitative survey of Saudi industrial firms; PLS-SEM with bootstrapping	Industrial sector (KSA)	No explicit theory (PLS-SEM)	2025	Saudi Arabia
	(Lara-Pérez et al., 2025)	Information Technology & People	How the interaction of innovation and ERP systems on business intelligence affects the performance of Mexican manufacturing companies	Survey of 120 manufacturing firms; PLS-SEM	Manufacturing (Coahuila, Mexico)	No explicit theory (PLS-SEM)	2025	Mexico
76	(Llavisaca-Villazhañay et al., 2025)	Administrative Sciences	Key drivers of ERP implementation in digital transformation: Evidence from Austro-Ecuadorian	Mixed methods; survey & interviews of 55 SMEs; Multiple Correspondence Analysis (MCA) + clustering	SMEs (Austro region)	No explicit theory; CSFs + MCA	2025	Ecuador
78	(Dospinescu & Buraga, 2025)	Systems	Integrated ERP systems — Determinant factors for their adoption in Romanian organizations	Questionnaire (n=440); multiple linear regression (SPSS/SmartPLS)	Romanian organizations (mixed sizes/sectors)	TOE framing + econometric regression	2025	Romania
78	(Reyes et al., 2025)	Journal of Health Organization and Management	Examining factors influencing the adoption of enterprise resource planning systems in secondary healthcare institutions	Self-administered online survey (n=250); PLS-SEM + Random Forest (96% accuracy)	Secondary healthcare institutions (PH)	Extended UTAUT + Valence Model	2025	Philippines

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
79	(Hammad et al., 2024)	Heliyon	A model for enterprise resource planning implementation in the Saudi public sector organizations	Conceptual model; expert ranking of factors (10 experts; mean scores)	Public sector organizations (KSA)	TAM + DeLone & McLean IS Success (integrated)	2024	Saudi Arabia
80	(Isiaku & Adalier, 2024)	Information Development	Determinants of business intelligence systems adoption in Nigerian banks: The role of perceived usefulness and ease of use	Mixed-methods: Survey with PLS-SEM (Study 1) + Qualitative interviews (Study 2)	Commercial banks (Nigeria)	TOE → TAM (PU/PEOU)	2024	Nigeria
81	(El Haouat et al., 2024)	Results in Engineering	Environmental optimization and operational efficiency: Analysing the integration of life cycle assessment (LCA) into ERP systems in Moroccan companies	Survey sent to 220 firms; 95 valid ERP-using firms analyzed; SPSS v25 statistical/correlation analyses; Chi-square tests	Moroccan companies (multi-sector)	No explicit theory; empirical survey + chi-square	2024	Morocco
82	(Abobakr et al., 2026)	Journal of Financial Reporting and Accounting	An experimental investigation of the impact of sustainable ERP systems implementation on sustainability performance	1×2 lab experiment; n=72 professional accountants (MPA/MBA/DBA) from two Egyptian universities; simple linear regression	Manufacturing context (Egypt)	No explicit theory; experimental design	2024	Egypt
83	(Al-Assaf et al., 2024)	Big Data and Cognitive Computing	The Relative Importance of Key Factors for Integrating ERP Systems and Performance Management Practices in the UAE Healthcare Sector	Literature review → expert interviews → online survey of 81 experts; Relative Importance Index (RII) analysis	Healthcare sector (UAE)	No explicit theory; factor prioritization (RII)	2024	United Arab Emirates

S_ID	Author	Journal	Title	Data collection/ Respondents	Role/ Domain	Model	Year	Country
84	(Soliman & Karia, 2025)	Global Business Review	Investigating ERP Readiness Enablers and Inhibitors Among Egyptian Higher Education Institutions	Survey of 112 HEIs	Higher Education Institutions (Egypt)	No explicit theory; readiness enablers/inhibitors framework	2025	Egypt
85	(Latif et al., 2025)	South Asian Journal of Business and Management Cases	ERP Adoption and Strengthening of Management Accounting and Controls at a Pakistani Manufacturing SME: A Case Study Approach	Single holistic case study; 14 semi-structured interviews + observations + documents; Gioia methodology	Manufacturing SME (Pakistan)	Extended Burns & Scapens framework + dynamic capabilities	2025	Pakistan
86	(Jaradat, AL-Hawamleh, Altarawneh, et al., 2025)	Journal of Business and Socio-economic Development	Effects of effective ERP system utilization on enterprise economic sustainability through product life cycle cost control	Questionnaire survey of managers, production managers, accounting heads, and cost accounting staff in Jordanian industrial firms	Industrial sector (Jordan)	No explicit theory (quantitative survey)	2025	Jordan
87	(Alsughayer, 2025)	Journal of Accounting & Organizational Change	Role of ERP systems in management accounting in SMEs in Saudi Arabia	Multiple-case study of 2 Saudi SMEs; semi-structured interviews + secondary data	SMEs (KSA)	TOE + Contingency Theory	2025	Saudi Arabia

APPENDIX B: EXTRACTED FACTORS FROM THE SYSTEMATIC LITERATURE REVIEW

Factors			
Accessibility	Employee Relationships	Internal Integration	Perceived Value
Accuracy	End-User Grumbling	Internal Operations	Performance Evaluation
Affordability	Ensuring Survival	Internal Process	Performance Expectancy
Age	Evaluation	Internal Process Performance	Performance of Medium Enterprises
Appropriate Legacy Systems	Evaluation of Performance	Its Capability	Performance Perceptions
Attitude	Exhaustion	Job Effectiveness	Personnel Structure and Potential
Availability	Experience	Knowledge Management	Political Situation
Business Process Characteristics	Experience	Labour Intensity	Post Implementation Training
Capital Intensity	Extensive Competent Team	Leadership Commitment and Support	Potential Business Opportunities
Change Management	External Stakeholders	Learning and Growth	Potential Business Partners
Clear Vision And Planning	External Tech Support	Learning and Growth Performance	Presence of Champion
Communication	Facilitating Conditions	Legacy System	Previous Firm Risks
Compatibility	Feature Task-Match	Lineage Metadata Quality	Problem Identification Speed
Competencies	Finance Dashboards	Market Scope	Process Institutionalization
Competitive Pressure	Financial Support	Market Structure	Process Integration
Complexity	Firm Performance	Market Trend	Process Management
Conflict Resolution	Firm Size	Minimal Customisation	Productivity
Consultant Support	Fixed Effects	Monitoring	Products and Services Placement
Content	Formal and Informal Structure	Navigational Metadata Quality	Project Champion
Cost	General or Specialized	Necessity of Data Transparency	Project Management
Customer Learning Growth	Government Financial Support	Observability	Quality Management
Customer Service	Government Role	Online Reports	Rational Decision-Making
Data Generation Processes	Green Supply Chain Management	Operational Performance	Regulatory Body Account for BI Systems Adoption
Data Integration	Human	Organisational Culture	Skills

Factors			
Data Mining	Impact on Management	Organizational	Slack
Data Quality	Impact on Marketing and Sales	Organizational Adaptation	Social Influence
Data Security	Impact on Operations	Organizational Complexity	Social Movements
Data Storage	Impact on Procurement	Organizational Data Environment	Socioeconomic Aspects
Decision Making	Impact on Sales	Organizational Effectiveness	Socio-Organizational Considerations
Definitional Metadata Quality	Individual Performance	Organizational Performance	Software Performance
Difficulties Of Fitting And Adapting	Individualistic Considerations	Organizational Readiness	Software Testing And Troubleshooting
Driver-Based Forecasts	Industry Characteristics	Organizational Resistance	Sponsorship
Driving Capability	Industry Technology Intensity	Organizational Slack	Staff Consultant
Economic Situation	Information Integration	Organizational Support	Standards For Process Integration
Education	Information Quality	Overall Process	Strategy
Effectiveness	Infrastructure	Own Customers	Strategy Maps
Effort Expectancy	Innovativeness	Package Selection	Suitability Management Support
Elapsed Time	Integration Data Management	Perceived Ease of Use	Training
Emailing And Remote Conferencing	Integrity	Perceived Usefulness	Transforming Capability
Regulatory Environment	Inter Department Information Sharing	Suitable Hardware Platform	Trialability
Relative Advantage	Intercept	Suitable Software	Uncertainty
Result Demonstrability	Technological	Suitable Software Platform	User Involvement
Role Ambiguity	Technological Change	Supplier Integration Key User Capability	User Satisfaction
Routine Use	Technological Readiness	Support Business Processes	User Traits
Sales Growth	Technology Anxiety	Sustainability	Value-Generation
Sales Turnover	Technology Availability	Sustainable Data Quality	Variance Analysis
Satisfaction	Technology Maturity	Sustainable Performance	Vendor Support
Security Situation	Technology Readiness	Switching Benefit	Vision
Self-Efficacy	The Existence of Project Leader	System Capability	Work Home Conflict
Sensing Capability	The Existence of an Organizational Structure	System Integration	Work Overload
Server Location	The Lack of Knowledge of Business People	System Quality	Year of Operational Use

Factors			
Service Provider Support	The Time it Takes Implementing a Bi Project	Systems Effectiveness	Shortage of Funds For Adoption
Service Quality	Timeliness	Teamwork	Technical Resources
Top Management			

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