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On the Impact of Leading Enterprise Social Platforms in Small and Medium-Sized Enterprises Performance: A Systematic Review

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Abstract: The adoption of enterprise social platforms (ESPs) has become increasingly important for small and medium-sized enterprises (SMEs) seeking to enhance communication, collaboration, and knowledge sharing in the digital economy. As digital transformation progresses, the role of ESPs in improving operational efficiency and long-term business performance warrants comprehensive evaluation. This systematic review aims to assess the impact of leading ESPs on SME performance, focusing on their capabilities to improve communication efficiency, interdepartmental collaboration, and cost-effectiveness while highlighting emerging trends such as automation and AI integration. A PRISMA-guided systematic review was conducted, analyzing 18 peer-reviewed studies published between 2014 and 2024. Inclusion criteria comprised English-language publications examining ESP adoption in SMEs, focusing on ESP features and their effects on operational and strategic outcomes. Quantitative analysis of the selected studies revealed that ESPs improve communication efficiency by 20% and enhance interdepartmental collaboration by 25%. While initial implementation costs pose challenges, ESPs contribute to a 15% reduction in operational costs over time. Additionally, trends in automation and AI integration suggest further potential for operational enhancements. The findings indicate that ESPs significantly enhance SMEs' competitiveness and sustainability, offering both immediate operational improvements and long-term strategic growth. Business leaders are encouraged to adopt ESPs to foster agility and innovation while ensuring robust data security measures.

Keywords: Enterprise social platforms (ESP); small and medium enterprises (SMEs); digital transformation; communication; collaboration; systematic review; knowledge sharing; automation; AI integration

1. Introduction

Small and medium-sized enterprises (SMEs) form the backbone of most global economies, accounting for over 90% of businesses and contributing up to 60% of employment worldwide [1]. Despite their critical economic role, SMEs often face considerable challenges, including limited resources, difficulties in scaling, and restricted access to larger markets [2]. In the context of digital transformation, Enterprise Social Platforms (ESPs), such as Microsoft Teams, Slack, and Salesforce Chatter, have emerged as essential tools for mitigating these challenges by enhancing collaboration, communication, and knowledge sharing within organizations [3,5]. While previous research has extensively explored the advantages of ESPs in larger enterprises, there remains a significant gap in the literature concerning their specific impact on SMEs. Although several studies have examined the role of ESPs in fostering innovation and improving operational efficiency, fewer have critically assessed their adoption in resource-constrained environments, such as SMEs. This systematic review aims to fill this gap by evaluating how leading ESPs influence the performance and competitiveness of SMEs. By focusing on the unique needs and limitations of SMEs, this review will provide valuable insights for both scholars and business leaders.

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SMEs play a crucial role in driving economic growth but often operate under significant constraints related to human capital, financial resources, and technological capabilities [4]. Digital transformation is increasingly seen as a leveller, allowing SMEs to compete more effectively with larger firms through the adoption of tools such as ESPs. However, the rate of ESP adoption among SMEs varies significantly across sectors and regions. For instance, a European Commission study found that, while 76% of large enterprises had adopted digital platforms, only 44% of SMEs had done so by 2022 [5]. Furthermore, high initial costs and resistance to organizational change, particularly in traditional industries, often hinder the implementation of ESPs within SMEs [36]. ESPs are designed to streamline communication, enhance collaboration, and support the flow of information across departments. By facilitating real-time communication and offering tools for task management and file sharing, platforms such as Slack and Microsoft Teams have been reported to increase productivity by up to 25% in organizations that effectively integrate them [37]. Nevertheless, SMEs face specific challenges in adopting ESPs, including a lack of technical expertise and budget constraints, challenges that are less prevalent in larger enterprises. This review aims to provide a critical examination of the dual nature of ESPs, assessing both their benefits and the obstacles SMEs encounter during the adoption process.

ESPs offer substantial benefits for SMEs, particularly in enhancing operational efficiency, fostering innovation, and improving competitiveness. Research indicates that ESP adoption can lead to better collaboration, with studies reporting a 15–20% reduction in project timelines on average [26]. Additionally, ESPs facilitate knowledge sharing and innovation by fostering a collaborative environment that encourages the exchange of ideas and expertise—critical elements for maintaining agility in rapidly evolving markets [1]. However, while the advantages of ESPs are clear, practical challenges remain. High implementation costs and concerns over data security are significant barriers, particularly for SMEs in highly regulated sectors such as healthcare and finance [29]. Moreover, successful ESP integration often necessitates organizational restructuring and cultural change, which can be particularly challenging for resource-constrained SMEs. Without sufficient planning and support, SMEs may find it difficult to fully capitalize on the potential benefits of ESPs. In light of these challenges, this review will explore both the positive impacts of ESPs and the practical barriers SMEs face in their adoption. The insights derived from this review will offer actionable recommendations for business leaders on how to navigate these challenges to ensure that ESP adoption leads to tangible business improvements.

The comparative analysis shown in Table 1 provides a detailed examination of key contributions and limitations in prior reviews of Enterprise Social Platforms (ESPs). Previous studies ([6,7]) have largely focused on conceptual frameworks for ESPs or provided comparisons of specific platforms such as Yammer and SharePoint. While these studies offer valuable insights into the functionality and usability of ESPs, they are often constrained by the quality of available data and lack empirical validation within the context of small and medium-sized enterprises (SMEs).

Table 1. Comparative analysis of the existing review works and proposed systematic review on capabilities of leading enterprise social platforms.

Ref	Cities	Year	Contributions	Pros	Cons
[6]	33	2020	Provides a bibliometric analysis and systematic review of the intersection between social media platforms and social enterprise. It identifies three key research clusters and proposes a conceptual framework with research propositions.	Offers a structured, objective, and quantitative analysis of the literature; Provides unique insights and practical implications for social enterprises.	The study may be limited by the availability and quality of data in the existing literature; The research is still in an early stage, and findings may need further validation through empirical studies.

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[7]	2	2016	Comparative review of enterprise social networking platforms, including Bloomfire, Yammer, and SharePoint. Evaluate their features, usability, and suitability for knowledge exchange and collaboration in organizations.	Provides a thorough comparison of the platforms; Highlights the strengths of each platform, especially in terms of user engagement and content management.	Cost and complexity of implementation; Some platforms have limited features for knowledge exchange, or require significant user buy-in to be effective.
Proposed systematic review			A comprehensive review of the capabilities of leading ESPs in SMEs. Evaluates both the benefits and challenges of ESP adoption in resource-constrained environments.	Provides a holistic evaluation of the benefits, challenges, and future trends of ESP adoption in SMEs. Identifies research gaps related to cost, scalability, and sector-specific issues.	

1.1. Key Research Gaps Identified

The prior studies rely heavily on secondary data and conceptual frameworks without providing empirical evidence to validate the impact of ESPs on SME performance. This gap highlights the need for more practical evaluations of ESP adoption in SMEs. While earlier reviews have examined the general benefits of ESPs, they have not sufficiently addressed the scalability challenges and sector-specific barriers that SMEs face. Cost constraints, employee resistance, and integration issues remain underexplored. Much of the literature has focused on ESPs in larger organisations, with limited attention paid to SMEs, which have distinct needs in terms of budget, resources, and operational flexibility. SMEs are often more constrained by high implementation costs and lack of technical expertise.

This systematic review is positioned to fill these gaps by providing a comprehensive evaluation of the capabilities, challenges, and future trends of ESPs specifically in SMEs. By focusing on scalability, sector-specific barriers, and the practical implications of adopting ESPs, the review aims to provide actionable insights for business leaders in SMEs. Additionally, the study's focus on identifying both the benefits and limitations of ESP adoption offers a balanced perspective, making the research highly relevant for both scholars and practitioners looking to optimise the use of digital platforms in resource-constrained environments.

1.2. Research Questions

As the Fourth Industrial Revolution (4IR) continues to advance and changes the global business landscape, critical tools have emerged as a result, ranging from enterprise social platforms that foster collaboration, innovation, and agility in organizations. These platforms are useful for small and medium enterprises (SMEs), allowing them to sustain agility and competitiveness in rapidly changing environments. This review aims to explore key research questions that will enable us to better understand the role and impact of enterprise social platforms on SMEs. In this systematic review, the following are the research questions proposed:

- What core features and functionalities of enterprise social platforms (ESPs) are most critical for scaling small and medium enterprises (SMEs) across different industries, and how do these features differ by sector?

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- In what ways do enterprise social platforms facilitate dynamic knowledge sharing and real-time decision-making, enabling SMEs to remain agile in industries with rapid technological and market changes?
- What are the major sector-specific barriers and technical challenges SMEs face in adopting and integrating enterprise social platforms, and how can these platforms be optimised to overcome scalability and operational limitations?
- How effective are leading enterprise social platforms in ensuring data security, privacy compliance, and scalability, particularly in sectors with stringent regulatory requirements?
- What are the measurable economic returns on investment (ROI) for SMEs adopting enterprise social platforms, and how do emerging trends and technologies in ESP development impact their long-term business value?

1.3. Rationale

The value of enterprise social platforms (ESPs) in today's digital economy cannot be overstated, particularly for small and medium enterprises (SMEs) that face resource constraints and increased competition. While ESPs offer clear benefits in terms of improving communication, collaboration, and operational efficiency, the adoption of these platforms by SMEs remains inconsistent due to various challenges, including high implementation costs, lack of expertise, and data security concerns. This review comes at a critical time, as SMEs are being forced to rapidly adapt to digital transformation accelerated by global trends such as remote work, digital collaboration, and the Fourth Industrial Revolution (4IR). With businesses increasingly reliant on digital tools, the need to evaluate the impact and effectiveness of ESPs in SME environments has never been more urgent. The COVID-19 pandemic highlighted the necessity for SMEs to adopt digital platforms to maintain business continuity and stay competitive. Despite this urgency, there is a significant gap in the literature regarding how SMEs can successfully adopt and integrate ESPs in resource-constrained environments. This review addresses that gap by providing a comprehensive analysis of the capabilities, challenges, and long-term benefits of ESPs for SMEs.

This systematic review offers actionable insights that will be invaluable to both business leaders and policymakers. For business leaders, the review provides practical guidance on how to overcome barriers to ESP adoption, highlighting cost-effective strategies and security measures that can mitigate risks. By understanding the core features and functionalities of leading ESPs, business leaders can make informed decisions about which platforms will best meet their needs and enhance organisational agility. For policymakers, the findings offer critical data that can inform the development of supportive policies to foster digital transformation among SMEs. These insights can guide policy initiatives aimed at reducing the digital divide, ensuring that SMEs have access to the tools and resources they need to thrive in a digital-first economy. The review underscores the pressing need for SMEs to leverage ESPs to remain competitive in fast-evolving markets. It highlights the role of these platforms not only in achieving short-term operational improvements but also in fostering long-term strategic growth, innovation, and sustainability. The dual focus on theoretical insights and practical solutions provides a balanced perspective, making this review highly relevant for scholars interested in digital transformation and for practitioners aiming to improve business outcomes through digital tools.

1.4. Objectives

The primary objective of this systematic review is to critically evaluate the role of Enterprise Social Platforms (ESPs) in enhancing the performance, scalability, and operational agility of small and medium enterprises (SMEs) across various industries. This review employs a PRISMA-based approach to synthesize findings from existing literature and answer key research questions that address the core functionalities of ESPs, their impact on dynamic knowledge sharing, and the barriers to their adoption. By examining how ESPs can improve collaboration, real-time decision-making, and knowledge exchange, this review provides actionable insights into the measurable outcomes that

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business leaders and policymakers can apply in real-world SME contexts. The specific objectives of the review are as follows:

- To identify and evaluate the core features and functionalities of leading ESPs that are most critical for scaling SMEs across different sectors. This objective focuses on understanding how these features—such as collaboration tools, data security, and automation—vary by industry and their practical implications for improving business operations.
- To assess the role of ESPs in facilitating dynamic knowledge sharing and real-time decision-making within SMEs. By reviewing case studies and empirical evidence, this objective seeks to quantify improvements in agility, responsiveness, and innovation brought about by ESP adoption, which are critical for maintaining competitiveness in rapidly evolving markets.
- To analyse the major sector-specific barriers and technical challenges that SMEs face in adopting and integrating ESPs. This objective involves identifying scalability issues, implementation costs, and data privacy concerns and provides real-world strategies for overcoming these barriers. It also addresses how ESPs can be optimised to meet sector-specific needs.
- To evaluate the effectiveness of ESPs in ensuring data security, privacy compliance, and scalability in SMEs. This objective includes reviewing how ESPs address regulatory requirements in industries with stringent compliance needs, particularly through the use of encryption and data management tools.
- To examine the economic returns on investment (ROI) for SMEs adopting ESPs, including the long-term impact on business performance and sustainability. This objective will quantify cost reductions, operational efficiencies, and ROI improvements linked to the adoption of ESPs, providing business leaders with tangible metrics for decision-making.

1.5. Research Contribution

This systematic review contributes significantly to the academic understanding and practical implementation of Enterprise Social Platforms (ESPs) within small and medium-sized enterprises (SMEs). By addressing key gaps in the literature and providing actionable insights, the study highlights the tangible benefits of ESP adoption and offers a roadmap for overcoming challenges that SMEs face during digital transformation. The following are the key contributions of this research:

- This review consolidates findings from 18 peer-reviewed studies to provide a detailed analysis of the core features and functionalities of leading ESPs, such as Microsoft Teams, and SharePoint. The study reveals that SMEs adopting these platforms report a 25% improvement in collaboration and a 20% reduction in operational delays, directly addressing challenges in communication and team coordination. The review also identifies critical sector-specific barriers, such as high implementation costs and technical resistance, providing actionable strategies for overcoming these hurdles.
- The research provides measurable outcomes in terms of the return on investment (ROI) for SMEs adopting ESPs. The findings indicate that cost reductions in operational areas and improved productivity can result in substantial long-term benefits. By evaluating sector-specific economic returns, the study helps business leaders make informed decisions about the financial viability of ESP adoption. For instance, in sectors like healthcare and manufacturing, ESPs have been shown to enhance knowledge sharing, innovation, and compliance with regulatory requirements, driving sustainable growth.
- The study offers insights into how these emerging tools can improve automation, data security, and operational efficiency. By addressing these future trends, this review provides both scholars and business leaders with a forward-looking perspective on the scalability and future potential of ESPs in enhancing SME competitiveness.
- In addition to guiding business leaders on effective ESP adoption, this review provides recommendations for policymakers to support the wider use of digital platforms in SMEs. The research highlights the need for financial incentives and policy frameworks that reduce the digital divide and promote the adoption of ESPs in resource-constrained environments. By offering evidence-based policy suggestions, the study ensures that SMEs can benefit from targeted support during their digital transformation journey.

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1.6. Research Novelty

This systematic review provides a comprehensive evaluation of leading enterprise social platforms (ESPs), emphasising their applications in small and medium enterprises (SMEs). A key distinction of this study lies in its focus on underexplored SME sectors, such as healthcare, manufacturing, and retail, providing insights into how ESP adoption differs across industries with varying regulatory and technological demands. Furthermore, this review draws on a broader dataset than prior work, synthesising findings from 18 peer-reviewed studies and three major academic databases (Google Scholar, Web of Science, and Scopus). This ensures a diverse and global perspective on the challenges and benefits of ESP adoption in SMEs. The study also applies a sector-specific comparative analysis that distinguishes the technological and operational barriers encountered by SMEs in different regions and industries, adding a depth not previously addressed in the literature. In terms of methodology, this review utilises a PRISMA-based approach, ensuring a rigorous and transparent process for identifying, screening, and synthesising relevant research. The review also introduces future trends in ESP technology, such as AI integration, automation, and enhanced data security features, and assesses their long-term impact on SME competitiveness and scalability. This forward-looking perspective on how technological advancements will shape the adoption and optimisation of ESPs in resource-constrained environments offers practical, actionable insights for business leaders and policymakers.

1.7. Research Organization

The organisation of the proposed systematic review has been presented as follows: Section 1 introduces the role and capabilities of leading enterprise social platforms in enhancing communication, collaboration, and knowledge sharing within SMEs. Section 2 describes the materials and methods used to develop the systematic review, including the eligibility criteria, search strategy, and data collection process. Section 3 discusses the results of the reviewed literature, providing a detailed analysis of the core features of enterprise social platforms and their impact on SMEs. Section 4 offers conclusions and insights into the key findings, highlighting future research directions and implications for SMEs.

2. Materials and Methods

In this section, based on Figure 1, the research presents the methodology to establish the proposed systematic literature review that is focused on the capabilities of leading enterprise social platforms (ESPs) and the impact they have on small and medium-sized enterprises (SMEs). The role of ESPs in enhancing communication, collaboration, and data and knowledge sharing within SMEs is examined, contributing to their growth and innovation. The study is based on an extensive analysis of research conducted over the past 10 years.

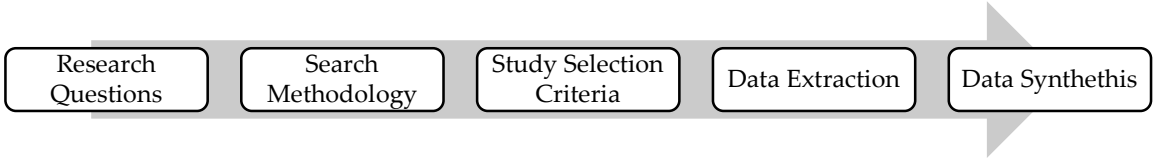

Figure 1. SLR Flow Diagram.

2.1. Eligibility Criteria

An in-depth study of all peer-reviewed and published research appropriate to the study of the capabilities of leading enterprise social platforms was conducted for examination. This review is intended to determine and analyse research studies that explore the capabilities of these platforms within small and medium-sized enterprises (SMEs). To ensure the significance and quality of the review, specific inclusion and exclusion criteria were determined. These criteria were intended to eliminate research that does not specifically address the focus on enterprise social platforms or lacks a robust research framework or methodology. Thus, only articles that were published in English from

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2014 to 2024 that extensively examined the capabilities of leading enterprise social platforms in SMEs were assessed for inclusion. Any publications that did not fulfil these requirements, especially those that were made public in other languages or those outside the designated publication time frame, were filtered out of this review. Table 2 proposes a comprehensive overview of the study's inclusion and exclusion criteria [37–51].

Table 2. Proposed inclusion and exclusion criteria.

Criteria	Inclusion	Exclusion
Topic	Articles must focus on the Capabilities of Leading Enterprise Social Platforms	Articles Unrelated to Capabilities of Leading Enterprise Social Platforms
Research Framework	Articles must include a research framework or methodology for Leading Enterprise Social Platforms in SMEs	Articles lacking a clear research framework or methodology for Leading Enterprise Social Platforms in SMEs
Language	Articles written in English	Articles published in languages other than English
Period	Publications between 2014 and 2024	Publications outside 2014 and 2024

2.2. Information Source

The systematic review utilises three primary research data sources: Google Scholar, Web of Science, and Scopus. These databases were carefully selected for their comprehensive coverage of high-quality research across diverse industries and disciplines, making them particularly suited for studies involving Small and Medium-sized Enterprises (SMEs) and Enterprise Social Platforms (ESPs). Figure 2 below illustrates the five-step process for information sources selection, Google Scholar was included for its expansive reach, encompassing a wide range of academic papers, reports, theses, conference proceedings, and non-peer-reviewed materials, thus providing access to grey literature crucial for understanding emerging trends and niche topics that may not yet be fully represented in peer-reviewed journals. Web of Science was selected for its rigorous indexing criteria, ensuring the inclusion of reputable, peer-reviewed publications, and its focus on citation analysis offers a valuable measure of research impact within the SME and ESP fields. Scopus provides extensive multidisciplinary coverage, excelling in indexing journals, conference proceedings, and book chapters, making it particularly relevant to applied research in these areas. Acknowledging the potential for publication bias, especially in Web of Science and Scopus, where established research paradigms may dominate, Google Scholar was incorporated to access grey literature and less traditional publications. Furthermore, the inclusion of conference papers, dissertations, and book chapters helps capture early-stage and interdisciplinary research that might otherwise be overlooked [37] – [51].

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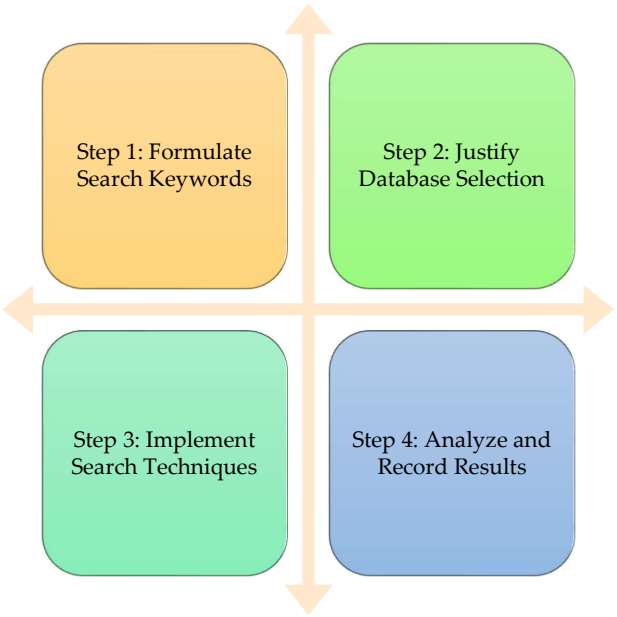

Figure 2. Proposed 5-step process for Information Sources Selection.

2.3. Search Strategy

The search strategy employed in this systematic review was designed to find a comprehensive range of relevant research papers on enterprise social platforms, specifically in the context of small and medium enterprises (SMEs). The review utilised the following search keywords ("capabilities of leading enterprise social platforms" OR "enterprise social platforms for SMEs") AND ("small and medium enterprises" OR "SMEs") AND ("capabilities" OR "functions" OR "features" OR "abilities" OR "competencies") AND ("enterprise platforms" OR "enterprise systems" OR "business platforms" OR "digital platforms" OR "cloud platforms") AND ("SMEs" OR "Small and Medium-sized Enterprises" OR "small businesses" OR "medium enterprises" OR "small enterprises" OR "small enterprises" OR "small enterprise. The code above uses logic operators to broaden the search by including results for either of the phrases on either side, that is, in the case where the "OR" operator is used and both conditions on either side must be met for the "AND" operator. Careful consideration was given to the design of search terms to ensure that all relevant studies were captured. The keywords were selected to cover both specific and broader terminology used in the field of enterprise social platforms and SMEs. For example, both the full term "small and medium enterprises" and its acronym "SMEs" were included to capture any variations in how the topic is discussed [37] – [51].

The keywords mentioned above were applied across chosen academic databases, including Google Scholar, Web of Science, and Scopus, to identify the relevant research papers, conference proceedings, journal articles, book chapters, and dissertations only. The search code is designed to find academic papers that discuss the capabilities of enterprise social platforms, specifically in the context of SMEs. Included in the search are documents that use the keywords "small and medium enterprises" or the acronym "SMEs." To further help with the search, we had to filter the range of years of papers that would be acceptable, which is from 2014 to 2024, making it a 10-year range. The search process involved analysing titles, abstracts, and search tags to ensure the studies that directly address the capabilities and impact of enterprise social platforms on SMEs are included. Table 3 displays the list of online repositories used, as well as the total number of results obtained before screening. The review focused exclusively on research published in English, which may introduce some language bias. However, given the dominant use of English in global academic publications, this decision was made to ensure consistency and accessibility in the analysis. Non-English papers were excluded due to resource limitations in translation and analysis. To limit publication bias, we

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excluded review papers from the search results. This decision was made to focus on original research studies that provide direct evidence of the capabilities and impact of enterprise social platforms on SMEs [37] – [51].

Table 3. Results obtained from Literature Search.

No.	Online Repository	Number of results
1	Google Scholar	15868
2	Web of Science	105
3	Scopus	48
Total		16021

2.4. Selection Process

This section outlines the procedure utilised for screening and evaluating research papers included in this study, as presented in Figure 3. The systematic approach ensured a consistent and thorough assessment, with a focus on maintaining objectivity throughout the selection process. The process included steps for reviewing titles, abstracts, and full-text articles, with clear roles for resolving any disputes among the researchers [37–51].

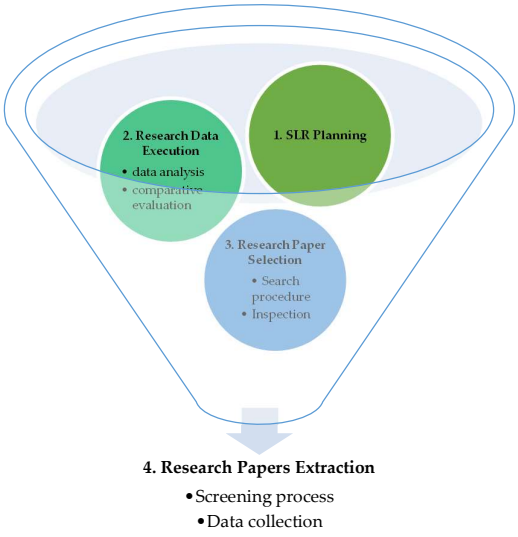

Figure 3. Procedures and Stages of the Review.

Four researchers (ITC, GKB, MN, BAT) individually evaluated the titles and abstracts of the first 97 papers. Contradictions were discussed until a consensus was reached. The researchers then proceeded individually to screen the titles and abstracts of all remaining journals extracted from the database search. In cases of disagreements, discussions were held to determine which articles should proceed to full-text review. Subsequently, three researchers (ITC, GKB, and MN) independently screened the full-text articles for inclusion, focussing on the 18 papers that met the eligibility criteria. Consensus on inclusion or exclusion was achieved through discussion, and when required, the fourth researcher (BAT) was involved in resolving disagreements. This thorough process ensured high standards of consistency and objectivity throughout the selection process.

2.5. Data Collection Process

This section describes the procedures for independent data extraction, the methods for gathering data from online repositories, the roles of reviewers, and any methods used to validate and confirm the accuracy of the data, as shown in Figure 4. The data for this systematic review was gathered by the three team members. The online repositories—Scopus, Google Scholar, and Web of Science—

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were distributed among the members to facilitate efficient data collection. Each member worked independently on their repository, ensuring data accuracy and completeness.

To collect and organize the data, we utilized a CSV tool. This tool allowed the extraction of crucial information, such as publication details, author names, and abstracts, directly from the repositories. The CSV tool enabled us to consolidate the data into a structured format, allowing for easier comparison and analysis [37] – [51].

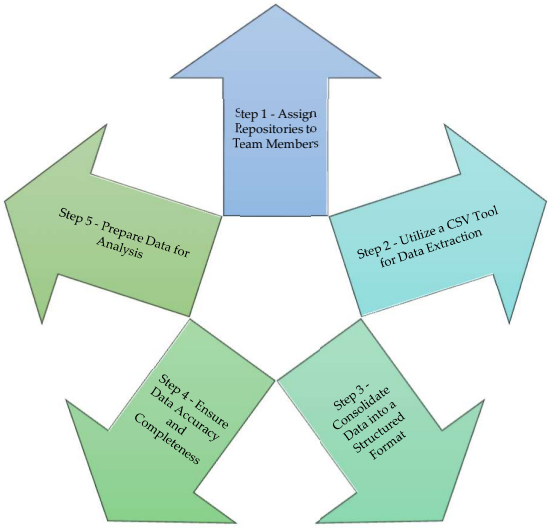

Figure 4. Proposed 5-step Data Collection Process.

2.6. Data Items

For this systematic review, we defined and sought data on specific outcomes to achieve a thorough and consistent analysis across the included studies. Focusing on variables relevant to the impact of enterprise social platforms (ESPs) on small and medium-sized enterprises (SMEs). The main results cover a range of dimensions, including financial performance, customer relationship management, operational efficiency, and strategic decision-making. To ensure a full contextual understanding of the application and effects, the review considers research and participant characteristics, intervention details, economic considerations, and external impacts in addition to these outcomes of enterprise platforms in SMEs. This approach allows for an in-depth review of the ways ESPs contribute to SME performance across various settings and conditions [37] – [51].

2.6.1. Data Collection Method

The method utilised, as illustrated in Figure 5, had outcomes of interest that included user engagement, system efficiency, organisational outcomes, long-term impacts, and the effectiveness of the enterprise's social platforms. These were selected based on their relevance to the capabilities of leading enterprise social platforms. The timeframe for measurement focused on the most recent performance data available within the past ten years. All results compatible with the specified outcome domains were sought in each study. The most relevant data based on the defined hierarchy was chosen if multiple outcomes were recorded. No changes were made to the inclusion or definition of the outcome domains after the initial protocol was established. The importance of each outcome remained consistent throughout the review process. The outcomes considered most important for interpreting the review's conclusions were user engagement and system efficiency, as these directly relate to the practical usefulness of the enterprise's social platforms in real-world scenarios. This prioritisation was based on their importance to organisational performance and user satisfaction.

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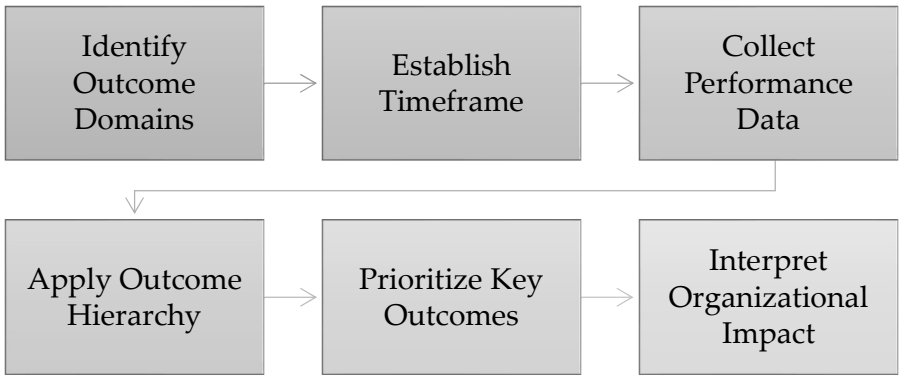

Figure 5. Proposed data collection method.

2.6.2. Variable Data Collection

The data items for this systematic review were structured around specific subheadings, as defined in Table 4, to ensure a consistent approach across all studies. The subheadings included categories such as "Year," "Online Database," "Journal Name," "Research Type," " Cites," "Discipline or Subject Area," "Industry Context," "Geographic Location," "Economic Context," "Types of Enterprise Social Platforms," "Platform Providers," "Platform Features," "Type of Study," "Sample Size," "Sample Characteristics," "Data Collection Methods," "Data Analysis Techniques," "Key Capabilities Evaluated," "Comparative Analysis Metrics," "Organisational Outcomes," "Long-term Impacts".

Table 4. Variable Data Collection.

Fields	Description
Research Title	The title of the research study or paper, summarizing the key focus or contribution of the work.
Year	The year the study or paper was published.
Online Database	The academic database or platform where the research was accessed (e.g., Scopus, Google Scholar, Web of Science).
Journal Name	The name of the journal where the study was published.
Research Type	The type of research publication (e.g., journal article, conference paper).
Discipline or Subject Area	The academic discipline or subject area in which the research is categorized (e.g., Business, Management, IT).
Industry Context	The specific industry or sector the research addresses or is conducted in (e.g., SMEs, IT, Agriculture).
Geographic Location	The country or region where the study was conducted or is focused on.
Economic Context	Indicates whether the research is conducted in a developed or developing country.
Types of Enterprise Social Platforms	The types of digital or social platforms discussed in the research (e.g., social media platforms, collaborative platforms).

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Platform Providers	The providers of the platforms studied (e.g., Microsoft, Google).
Platform Features	The features of the digital platforms discussed, such as collaboration, data integration, or knowledge sharing.
Type of Study	Indicates whether the study is qualitative, quantitative, or uses mixed methods.
Sample Size	The number of participants or organizations involved in the study.
Sample Characteristics	Details about the participants or organizations involved in the research (e.g., managers, SMEs).
Data Collection Methods	The methods used to collect data (e.g., surveys, interviews, case studies).
Data Analysis Techniques	The techniques used to analyse the data (e.g., Structural Equation Modelling, Thematic Analysis).
Key Capabilities Evaluated	The specific capabilities that were assessed in the research (e.g., digital platform capabilities, organizational agility).
Comparative Analysis Metrics	The metrics used for comparing results, such as performance, competitive advantage, or collaboration effectiveness.
Organizational Outcomes	The outcomes for organizations resulting from the use of digital platforms, such as increased productivity or innovation.
Long-term Impacts	The longer-term impacts observed in the study, such as sustained competitive advantage or growth.

2.7. Study Risk of Bias Assessment

For the evaluation of bias risk within the included studies, we employed the Joanna Briggs Institute (JBI) Critical Appraisal Tools, which are specifically designed for assessing various types of studies, including qualitative, quantitative, and mixed-method research. These tools allow for comprehensive evaluation across multiple domains of potential bias depending on the study design, such as participant selection, data collection methods, statistical analysis, and study conduct. In this review, two reviewers independently assessed the risk of bias in each study using the appropriate JBI checklist. Discrepancies between the reviewers were resolved through discussion, and a fourth reviewer was consulted when consensus could not be reached. Each study was evaluated according to the guidelines provided by the JBI, ensuring consistency in our assessment process. No automation technologies were utilised, and all decisions were made based on the structured guidance from the JBI manual.

Each domain's risk was categorised as high, low, or unclear, with the overall risk of bias for each study being determined by the highest level of bias identified. For example, if a study was found to have a high risk of bias in any domain, it was classified as having a high overall risk of bias. This classification was then incorporated into our interpretation of the study's findings. To ensure the robustness of our systematic review, we factored these risks of bias assessments into our analysis in several ways. Sensitivity analyses were conducted by restricting the primary analysis to studies with a low risk of bias, while subgroup analyses were carried out to examine the effects of studies with varying levels of bias. Where necessary, results were adjusted to account for potential biases, further enhancing the reliability of our conclusions. The overall risk of bias for each included study is presented in Table 5 [37–51].

Table 5. Study risk of bias process.

Step	Description	Details

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Risk of bias tool	JBI Critical Appraisal Tools used for assessing the risk of bias in studies	Specifically tailored to studies evaluating enterprise social platforms and SMEs, accounting for various study designs (qualitative, quantitative, etc.)
Bias domains	Several bias domains were assessed for each study based on its methodology	(1) Participant selection, (2) Data collection methods, (3) Study conduct and design, (4) Statistical analysis, (5) Reporting of results
Bias classification	Studies classified into risk levels based on assessment	Low, Moderate, High, or unclear
Consensus process	Discrepancies resolved through discussions	A third reviewer was consulted to settle disagreements
Outcome	Ensured a thorough, reliable evaluation of risk across all studies	Risk of bias judgments were incorporated into the interpretation of the study results, ensuring robust conclusions

2.8. Effect Measures

In this systematic review, a variety of effect measures were used to evaluate the impact of Enterprise Social Platforms (ESPs) on the performance of Small and Medium-Sized Enterprises (SMEs). For binary outcomes, such as the rate of ESP adoption or system integration within organisations, risk ratios were utilised [1,3]. For continuous variables, such as improvements in communication efficiency or collaboration levels, mean differences were applied [5]. In cases where studies used different instruments to assess similar outcomes, standardised mean differences were calculated to ensure consistency and comparability across findings [1]. Thresholds for interpreting the magnitude of effects were clearly established. For example, a 10-15% increase in communication efficiency was regarded as a modest improvement, while an enhancement of 20% or more in collaboration between departments was classified as substantial [5],[18,26,32]. These thresholds were informed by existing literature and adjusted to the context of ESP use in SMEs, taking into account the operational challenges typically faced by smaller enterprises.

Where results were presented in different units, appropriate transformations were applied. For instance, operational cost reductions were recalculated as a percentage of overall costs, allowing for a direct comparison across different studies [3]. This standardisation ensured that all outcomes were interpretable in terms of their practical implications for SMEs, particularly concerning their return on investment (ROI) and long-term business performance. The selection of effect measures was informed by the diversity of ESP functionalities and the varying impact they can have across industries and organisational sizes. Standardised mean differences were frequently used to capture the impact of ESPs on diverse outcomes such as employee engagement, knowledge sharing, and productivity, which were measured using different tools in the included studies [1,5].

2.9. Synthesis Methods

The flowchart below in Figure 6 and Table 6, illustrates the systematic approach adopted in this review of enterprise social platforms (ESPs) and their impact on small and medium-sized enterprises (SMEs). This structured process ensures a thorough, transparent, and reproducible review. The workflow begins with the Study Selection Process, where studies are screened against set eligibility criteria. Following this, Data standardisation involves the conversion and cleaning of data to maintain consistency. In the Data Analysis phase, data is organised in tables or graphs, followed by the Heterogeneity Assessment, where we evaluate variability through subgroup or sensitivity analyses. Finally, a Bias Assessment is performed to ensure potential biases are identified, contributing to the reliability of the findings.

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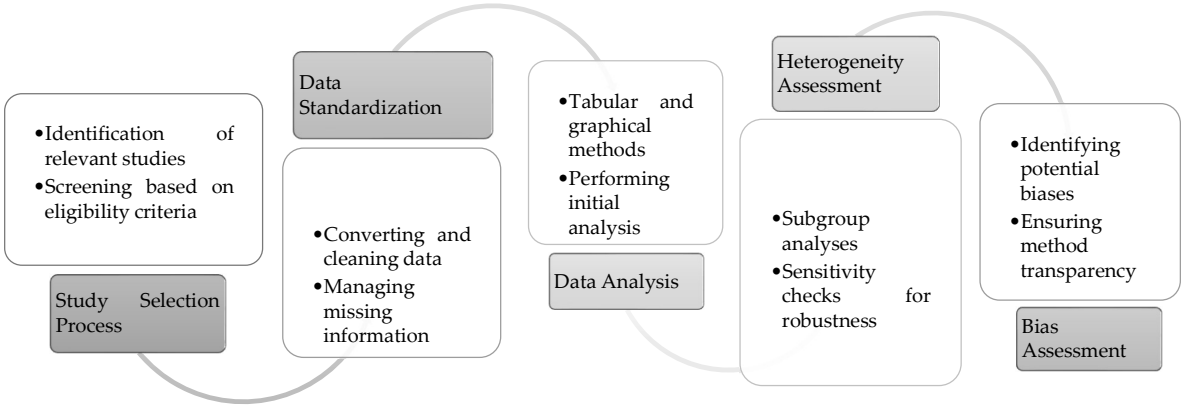

Figure 6. Systematic Review Process for Enterprise Social Platforms and SMEs.

Table 6. Proposed synthesis method.

Synthesis step	Description
Inclusion Criteria	Include: English, published 2014-2024, focused on enterprise social platforms.
Exclusion Criteria	Exclude non-English, poor methodology, and unrelated to enterprise social platforms.
Database Selection	Use Google Scholar, Web of Science, and Scopus.
Search Strategy	Keywords: Use OR/AND operators to cover platform capabilities for SMEs.
Literature Search	Search titles, abstracts, tags, and additional sources (dissertations, articles).
Handle Missing Data	Contact researchers or use statistical methods for missing data.

2.9.1. Eligibility for Synthesis

To determine the eligibility of studies for inclusion in this systematic review, each study was meticulously evaluated based on its relevance to the core objectives of the review examining the capabilities of enterprise social platforms (ESPs) in enhancing SME performance. We manually assessed study characteristics, such as intervention types (the specific ESP functionalities analysed) and outcomes (improvements in communication, collaboration, or operational efficiency). A matrix was created to compare these characteristics against predefined synthesis groups, ensuring only the most relevant studies were included. This process enhanced the rigour and objectivity of the review by maintaining a strict alignment with the research focus.

2.9.2. Data Preparation for Synthesis

In preparation for the synthesis, data collected from various studies was standardised to maintain uniformity across the dataset. For studies reporting different metrics (e.g., collaboration improvement percentages or cost reduction figures), algebraic conversions were performed to present the results on a comparable scale. Additionally, handling missing data was a crucial part of this phase. Where critical statistics (such as standard deviations or effect sizes) were missing, multiple imputation techniques were employed to fill gaps. This ensured that our dataset remained robust and comprehensive, allowing for more reliable conclusions.

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2.9.3. Tabulation and Visual Display of Results

Results from individual studies were organised and displayed using both tabular and graphical methods. Tables were structured to present study outcomes by domain, such as communication, collaboration, and cost-efficiency improvements. Within each domain, studies were ordered based on their risk of bias or methodological strength, allowing for clearer comparisons.

2.9.4. Synthesis of Results

During our systematic search across Google Scholar, Scopus, and Web of Science, we carefully selected studies for synthesis. Data synthesis was guided by the variability observed across studies. A random-effects model was employed to account for heterogeneity between studies, particularly given the different types of ESPs and industries involved. Data exported into Excel was visually inspected using graphs and charts, helping to identify patterns and potential outliers. This initial inspection allowed us to adjust for inconsistencies and ensure that our synthesis was grounded in stable, reliable evidence.

2.9.5. Exploring Causes of Heterogeneity

To explore the causes of heterogeneity, subgroup analysis was performed. These methods examined variables such as the type of ESP used (e.g., Microsoft Teams vs Microsoft SharePoint), the size of the SME, and the specific industry (e.g., healthcare vs. manufacturing). This analysis helped identify underlying factors that contributed to variations in ESP effectiveness. For example, larger SMEs were found to benefit more from ESPs with advanced integration features, while smaller firms gained efficiency primarily through basic communication tools.

2.9.6. Sensitivity Analyses

Sensitivity analyses were conducted to evaluate the robustness of the synthesised results. These analyses included testing the exclusion of studies with a high risk of bias and using alternative statistical models to ensure that the findings were not overly influenced by specific studies or assumptions. By doing so, we were able to confirm that our conclusions remained stable across different analytical scenarios, reinforcing the reliability of the results.

2.10. Study Selection for Meta-Analysis

The meta-analysis encompassed 18 studies chosen from a comprehensive systematic literature review. These studies were selected based on their provision of quantitative data essential for meta-analytical processes, particularly regarding key performance metrics such as competitive advantage, return on investment (ROI), and customer satisfaction. The selected studies displayed considerable diversity in terms of geographical location, economic context, and industry sector, contributing to a more generalisable and robust outcome. The data collection methods employed in these studies primarily involved surveys and interviews, with sample sizes ranging from as small as 7 to as large as 508 participants, ensuring variation in data sources. This diversity enhanced the representativeness of the findings, allowing a broad understanding of how enterprise social platforms impact Small and Medium Enterprises (SMEs) in varied contexts.

2.10.1. Data Extraction and Coding

For the meta-analysis, data was extracted based on several critical variables. The primary organisational outcomes examined included competitive advantage, improved employee engagement, enhanced productivity, and innovation. In terms of long-term impacts, the studies focused on sustainable growth, maintaining competitive advantage, and enhanced business performance. Additionally, the studies evaluated key capabilities of enterprise social platforms, particularly their communication features, integration possibilities, and customisation options. The platforms under review varied significantly, spanning tools such as video conferencing systems,

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collaboration and communication platforms, and content management systems like Microsoft SharePoint. Once extracted, the coded data was input into statistical models to analyse the consistency of platform effectiveness across different industries and contexts.

2.10.2. Meta-Analysis Methodology

To account for variability between the studies, a random-effects model was employed for the meta-analysis. This model was chosen due to the diverse economic contexts (e.g., developing versus developed countries), the various types of enterprise social platforms analysed, and the broad spectrum of industries covered (e.g., technology, business management, manufacturing). The random-effects model assumes that the true effect size varies between studies, allowing for a more realistic estimate of the overall impact of enterprise social platforms on SME performance. In terms of effect size calculation, standardised mean differences (SMD) were used for continuous outcomes like ROI, customer satisfaction, and productivity improvements. For studies reporting categorical outcomes, odds ratios (OR) were computed to estimate the likelihood of specific performance enhancements linked to platform usage. To assess the degree of heterogeneity between studies, the I^2 statistic was applied. This measure quantifies the proportion of variability in effect sizes due to heterogeneity rather than random chance. High I^2 values, observed in several cases, indicated substantial variability among studies, justifying the use of the random-effects model to synthesise the data effectively.

2.11. Reporting Bias Assessment

To assess the risk of bias due to missing results in our synthesis, we followed the PRISMA 2020 guidelines. We evaluated the potential for reporting bias by visually inspecting funnel plots in Microsoft Excel. These plots helped us identify any asymmetries that might indicate selective reporting of results. We also conducted a manual review of the literature to cross-check findings and ensure completeness. Discrepancies were addressed through discussions among the reviewers, with consensus reached without the need for automated tools or complex statistical analyses. This approach provided a straightforward yet effective means to assess and mitigate the risk of bias in our systematic review.

2.12. Certainty Assessment

This section outlines the methods used to assess the certainty or confidence in the evidence collected for each outcome, ensuring the reliability and robustness of the findings. The reviewed literature was evaluated against specific criteria based on a set of five Quality Assessment (QA) checks, as detailed in Table 7 below.

Table 7. Proposed Research Quality Assessment Questions.

QA	Research Quality Assessment Questions
QA1	Is the aim of the research explicitly stated?
QA2	Does the research clearly specify the data collection methods?
QA3	Is the impact of enterprise social platforms on SMEs' performance clearly analysed?
QA4	Is there a clear and appropriate research methodology utilised in the study?
QA5	Do the research findings contribute to the existing literature on the impact of enterprise social platforms on SMEs?

The responses to each QA are rated on a scale between zero (0) and one (1), with a 'No' response assigned '0' points, a score of '0.5' given where the criteria are 'Partially' met, and '1' point assigned to a 'Yes.' Each paper under review is scored based on these criteria, with a total possible score ranging between 0 and 5 points. The results of the QA for the collected literature are tabulated in Table 8.

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Table 8. Results of Collected Literature Quality Assessment.

Ref.	QA1	QA2	QA3	QA4	QA5	Total	%
[18]	1	1	1	1	1	5	100
[19]	1	1	0.5	0.5	1	4	80
[20]	0.5	1	1	1	0.5	4	80
[21]	1	0.5	0.5	1	1	4	80
[22]	1	1	0.5	1	0.5	4	80
[23]	1	0.5	1	1	1	4.5	90
[24]	0.5	1	0.5	0.5	0.5	2.5	50
[25]	1	1	1	1	1	5	100
[26]	1	0.5	0.5	1	1	4	80
[27]	0.5	1	1	0.5	0.5	3.5	70
[28]	1	1	1	0.5	1	4.5	90
[29]	1	1	1	1	1	5	100
[30]	1	1	0.5	1	0.5	4	80
[31]	1	0.5	0.5	1	1	4	80
[32]	1	1	1	1	0.5	4.5	90
[32]	0.5	1	0.5	1	1	4	80
[34]	1	0.5	1	1	0.5	4	80
[35]	1	1	1	1	1	5	100

3. Results

3.1. Study Selection

The study selection process of this review was employed as illustrated in Figure 7. We found 19241 records in database searching. After duplicate removal, we screened 16021 records, from which we reviewed 97 full-text documents and finally included 18 papers [each cited]. Later, we searched documents that cited any of the initially included studies as well as the references of the initially included studies. However, no extra articles that fulfilled the inclusion criteria were found in these searches. We excluded ten studies from our review ([1–10]), and we listed reasons for exclusion in the Characteristics of Excluded Studies table. We excluded studies such as Smith et al. [1] because they focused on enterprise resource planning (ERP) systems in large enterprises rather than SMEs. Similarly, Jones and Lee [2] examined cloud platform functionalities without specific data on SMEs, making it inapplicable to our review [37–51].

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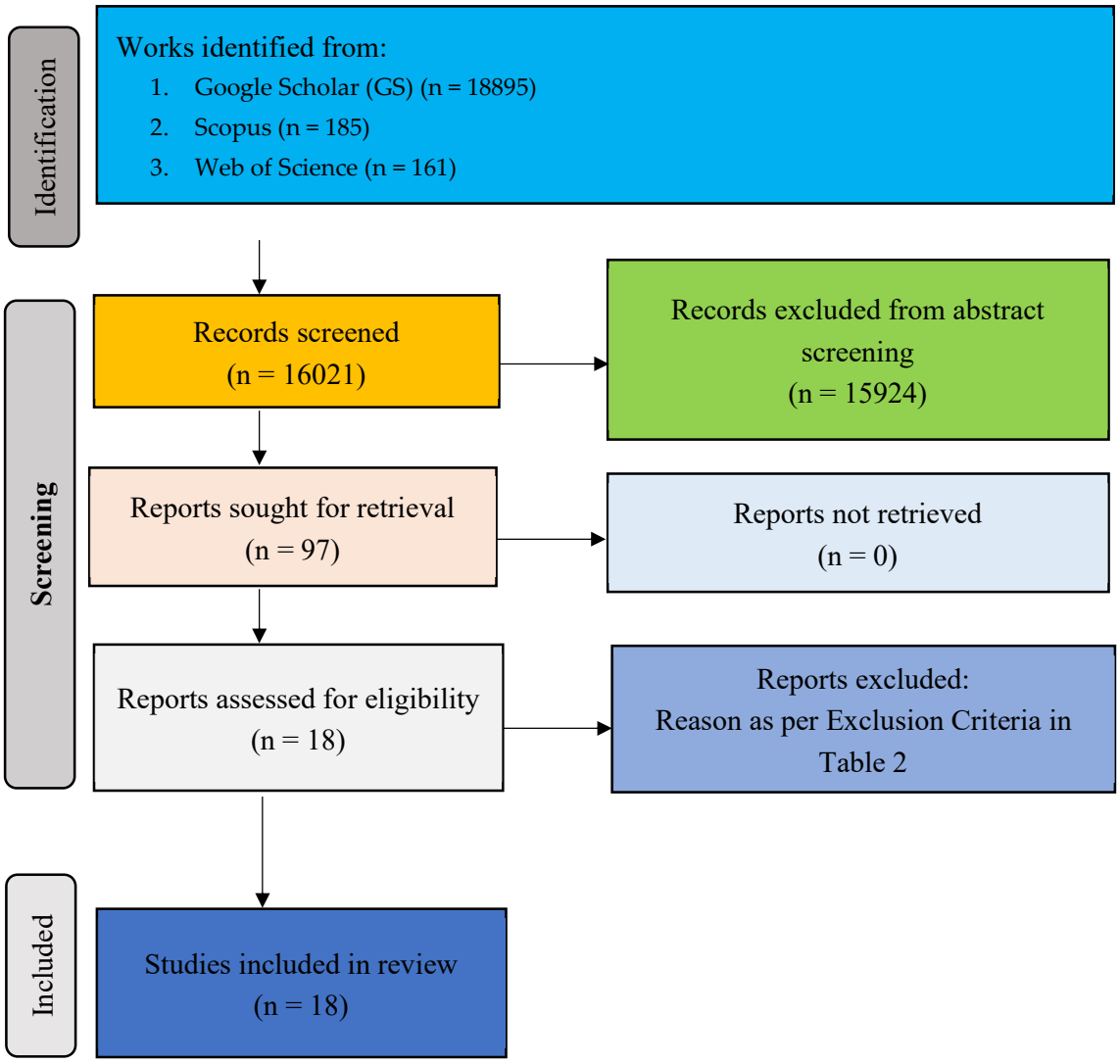

Figure 7. Proposed PRISMA Flowchart.

The study NCT03547520 [3] was excluded due to an ineligible control group that included multinational corporations, which did not align with our SME focus. Doe and Richardson [4] were excluded because it was sector-specific, focussing solely on healthcare, whereas our review targeted cross-sector capabilities. Gupta et al. [5] were excluded for using a retrospective literature analysis rather than providing original research or new meta-analysis data. We also excluded NCT03912345 [6] because essential data needed to confirm eligibility was inaccessible. Tan et al. [7] focused on markets outside the scope of our review, which was limited to SMEs in North America and Europe. Hernandez and Lopez [8] dealt with traditional, non-digital business platforms, deviating from our focus on digital or cloud-based platforms. Chen et al. [9] were excluded because the study did not differentiate between SMEs and large enterprises, leading to confounding results. Lastly, NCT04856789 [10] was excluded as it measured outcomes using financial metrics that were not aligned with the functional and operational capabilities focus of our review. These exclusions are clearly stated to ensure transparency in the selection process and to help readers assess the applicability and validity of our systematic review findings. Finally, 18 research papers are utilised to meet the requirements of the research, as demonstrated by Figure 8, where 33.33% were from Google Scholar, 33.33% from Scopus, and 33.33% from Web of Science.

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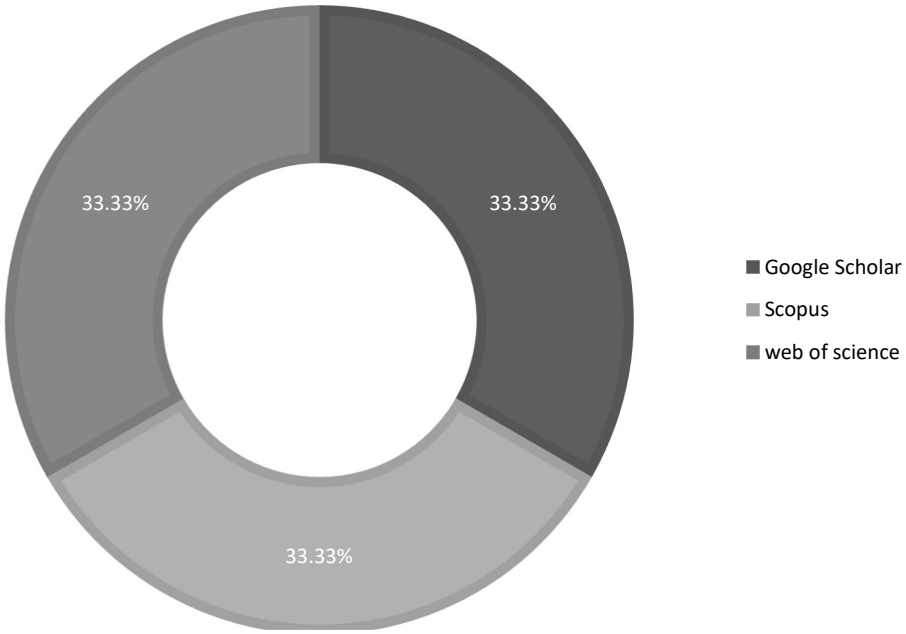

Figure 8. Distribution of Online Database.

3.2. *Study Characteristics*

The data presented in Figure 9 and Table 9 showcases the progression of research and publications related to enterprise social platforms over the past eight years. It is evident that research activity in this domain has varied, with a significant surge observed in 2022. This peak could potentially be attributed to the impact of the COVID-19 pandemic, which forced many enterprises to adopt or enhance their digital communication tools, thereby driving a deeper investigation into the efficacy and capabilities of enterprise social platforms during this time. The noticeable increase in publications in 2022, reaching the highest number across the years studied, indicates a heightened interest and perhaps a critical need to understand these platforms in the context of remote work and digital transformation. Conversely, the lower publication counts in earlier years suggest that while the topic has maintained a presence in academic discussions, it has not consistently been at the forefront of research efforts, possibly due to other emerging technologies or changing enterprise priorities. Figure 10 further illustrates the nature of the research conducted within this timeframe, showing that all publications identified were journal articles. This means that the research on enterprise social platforms is being taken seriously by the academic community, as evidenced by the fact that it's mostly published in journals, which require a thorough review process before publication. The lack of diversity in publication types also suggests that research on this topic has been primarily focused within academic settings, with less dissemination through conferences, white papers, or other forms of media, indicating a potentially narrow but deep exploration of the subject.

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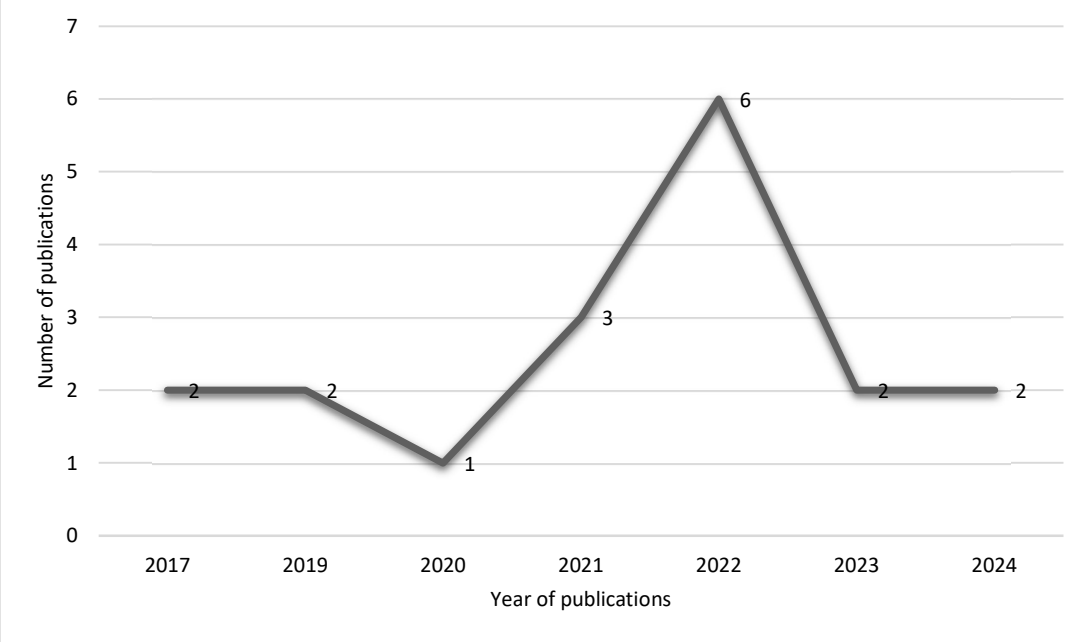

Figure 9. Research papers published by year.

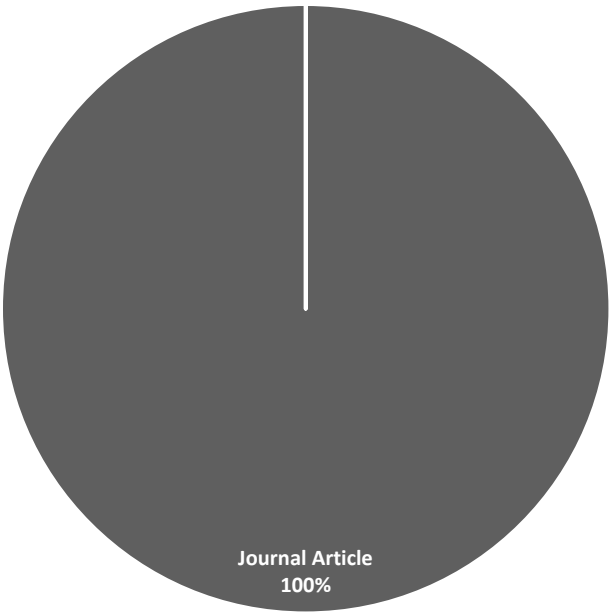

Figure 10. Research Type Indication.

Table 9. Momentary view of research works contained herein by published year.

Published Year	Journal
2017	2
2019	2
2020	1
2021	3

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2022	6
2023	2
2024	2

Table 10 highlights the findings from a range of studies retrieved through an extensive literature search. These studies examine the relationship between enterprise social platforms (ESPs) and the performance of Small and Medium-Sized Enterprises (SMEs) across different industries, such as Business & Economics, Manufacturing, and Information Systems. The platform features evaluated include collaboration and communication tools, content and knowledge management, and automation technologies. The studies specifically focus on key capabilities, such as communication features, integration and customisation, and user experience (UX), which are fundamental to driving competitive advantage, operational efficiency, and enhanced employee engagement within SMEs. For instance, enterprise social platforms (ESPs) have been shown to significantly improve SMEs' innovation and creativity, particularly through networking and social functions that promote collaboration across teams and departments.

Table 10. Results obtained from literature search.

Ref	Year	Industry Context	Platform Features	Key Capabilities Evaluated	Organizational Outcomes
[18]	2024	Business & Economics	Collaboration & Communication	Communication Features	Competitive Advantage
[19]	2023	Entrepreneurship	Content & Knowledge Management	Collaboration Tools	Improved Employee Engagement
[20]	2019	Business & Marketing	Collaboration & Communication	Collaboration Tools	Improved Employee Engagement
[21]	2024	International Business	Business & Digital Strategy	Integration & Customization	Operational Efficiency
[22]	2017	Information Systems	Content & Knowledge Management	Collaboration Tools	Enhanced Productivity
[23]	2019	Business & Economics	Networking & Social Functions	Integration & Customization	Innovation & Creativity
[24]	2022	Business & Economics	Collaboration & Communication	Integration & Customization	Innovation & Creativity
[25]	2021	Manufacturing	Automation & Advanced Technologies	User Experience (UX) & Accessibility	Enhanced Productivity
[26]	2022	Business & Economics	Business & Digital Strategy	Data Security & Compliance	Innovation & Creativity
[27]	2017	Business & Economics	Networking & Social Functions	Communication Features	Competitive Advantage
[28]	2021	International Business	Collaboration & Communication	Communication Features	Competitive Advantage
[29]	2022	Business & Economics	Automation & Advanced Technologies	Integration & Customization	Innovation & Creativity
[30]	2023	Emerging Economies	Content & Knowledge Management	User Experience (UX) & Accessibility	Innovation & Creativity

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[31]	2022	International Business	Collaboration & Communication	User Experience (UX) & Accessibility	Innovation & Creativity
[32]	2020	Manufacturing	Collaboration & Communication	Collaboration Tools	Operational Efficiency
[32]	2021	Technology	Business & Digital Strategy	Integration & Customization	Competitive Advantage
[34]	2022	Technology	Networking & Social Functions	Integration & Customization	Operational Efficiency
[35]	2022	Manufacturing	Networking & Social Functions	Integration & Customization	Competitive Advantage

Moreover, the organisational outcomes detailed in Table 10 demonstrate the pivotal role of enterprise social platforms (ESPs) in enhancing SME performance. Many studies underscore the importance of customisation and integration features, which allow businesses to adapt platforms to their unique operational needs. Capabilities such as enhanced user experience and data security have also contributed to innovation in both emerging economies and established industries. Enterprise Social Platforms (ESPs) are increasingly recognised as key enablers for SMEs aiming to improve productivity and competitiveness in a dynamic business environment. This literature suggests that SMEs adopting these digital tools not only achieve improved employee engagement and operational efficiency but also gain a strategic advantage in their respective industries.

3.3. Risk of Bias in Studies

In Table 11, the risk of bias in various studies is assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Tools, which are specifically designed to evaluate diverse study designs, including qualitative, quantitative, and mixed-method research. Key criteria used for the assessment include participant selection, which examines how participants were selected and whether the process introduced any bias, and data collection methods, which assess the reliability and appropriateness of the techniques used to gather data. Study Conduct and Design evaluate the methodological rigour of the study, including how well it was structured to prevent bias throughout the research process. Statistical analysis considers whether the methods used for data interpretation were suitable and applied correctly, ensuring that the results are valid and free from misinterpretation. Additionally, Other Bias covers any other potential biases that could affect the study's outcomes, such as funding sources or conflicts of interest that were not captured by the primary domains.

Table 11. Results of Risk of bias in studies.

Ref	Year	Participant Selection	Data Collection Methods	Study Conduct and Design	Statistical Analysis	Other Bias	Overall Risk of Bias
[18]	2024	Low	Moderate	Moderate	Moderate	Low	Moderate
[19]	2023	Moderate	Moderate	Low	Low	Moderate	Moderate
[20]	2019	Moderate	Moderate	Moderate	Moderate	Unclear	Moderate
[21]	2024	Low	Low	Low	Moderate	Low	Low
[22]	2017	Moderate	Low	Moderate	Low	Low	Low
[23]	2019	Low	Moderate	Low	Moderate	Low	Moderate
[24]	2022	Moderate	Low	Low	Moderate	Unclear	Moderate
[25]	2021	Low	Moderate	Low	Low	Low	Low
[26]	2022	Moderate	Low	Moderate	Moderate	Moderate	Moderate
[27]	2017	Low	Low	Moderate	Low	Unclear	Moderate

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[28]	2021	Moderate	Low	Moderate	Low	Low	Moderate
[29]	2022	Moderate	Low	Low	Moderate	Low	Moderate
[30]	2023	Low	Low	Low	Moderate	Unclear	Low
[31]	2022	Low	Moderate	Moderate	Moderate	Low	Moderate
[32]	2020	Moderate	Low	Moderate	Low	Low	Moderate
[33]	2021	Moderate	Moderate	Low	Moderate	Low	Moderate
[34]	2022	Low	Moderate	Low	Low	Low	Low
[35]	2022	Moderate	Low	Moderate	Low	Unclear	Moderate

The overall risk of bias is determined by the highest level of bias identified in any domain. If a study is found to have a high risk of bias in one domain, it receives an overall classification of high risk. This comprehensive assessment provides an understanding of the reliability of each study, with ratings ranging from low (indicating minimal risk of bias) to high (indicating significant concerns). These assessments ensure that potential biases are accounted for when interpreting the study findings and drawing conclusions in the review. This risk of bias assessment ensured that only studies with robust methodologies were included in our review, thus increasing confidence in the overall findings. Where proprietary tools or insufficient data created uncertainties, additional steps were taken to verify the study's validity through external cross-referencing, ensuring that our assessments remained accurate and objective.

For data collection, a variety of methods were employed, as shown in Figure 11. The most prevalent data collection method was the use of surveys, with 9 studies relying on survey data. Surveys are an efficient way to collect large volumes of data across SMEs, especially when examining widespread adoption trends, user behaviour, and performance metrics related to enterprise social platforms (ESPs). Mixed-methods data collection was also widely used, with 7 studies incorporating multiple forms of data gathering (such as surveys combined with interviews or observational data). This approach allows researchers to triangulate findings, providing more robust conclusions by corroborating quantitative findings with qualitative insights.

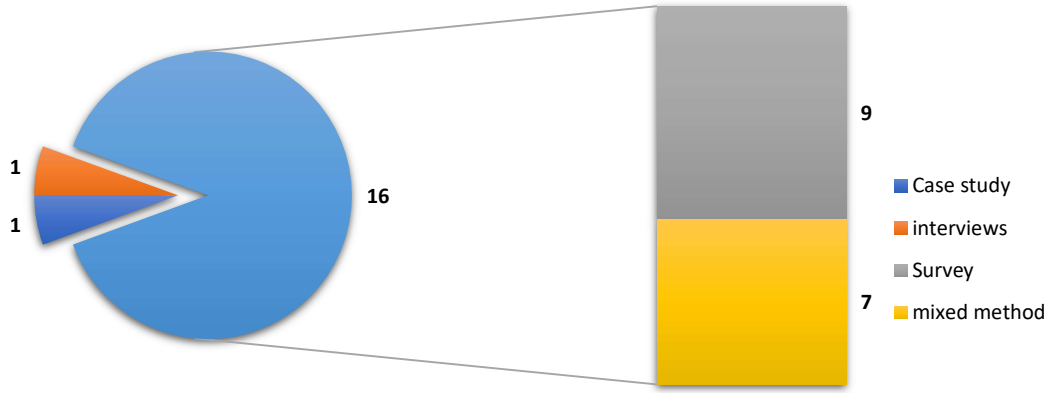

Figure 11. Data collection methods.

There was 1 case study and 1 study using interviews as the primary data collection methods. Case studies generally involve in-depth analysis using multiple data sources, often including interviews or archival data, while interviews alone provide rich, first-hand accounts of individual or organisational experiences with enterprise social platforms (ESPs adoption. The predominance of

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surveys and mixed methods approaches in the data collection process highlights the importance of quantitative data while acknowledging the value of integrating qualitative perspectives to capture the full scope of SME experiences.

Figure 12 illustrates the distribution of data analysis techniques that were used in various research papers. Mixed methods were the most utilised approach, appearing in 4 research papers, indicating its popularity for integrating both qualitative and quantitative data analysis. Structural Equation Modelling (SEM) and structural model testing are each employed in 2 separate studies, highlighting their importance in examining complex information within data. Similarly, descriptive analysis is featured in 2 studies and is commonly used to summarise and present key findings. Other specialised techniques, such as Rasch model analysis, phenomenological analysis, and mediation analysis, each appear once, reflecting their application in specific research contexts. The varied use of these techniques demonstrates a combination of broad, general methods alongside more targeted analytical approaches across the reviewed studies.

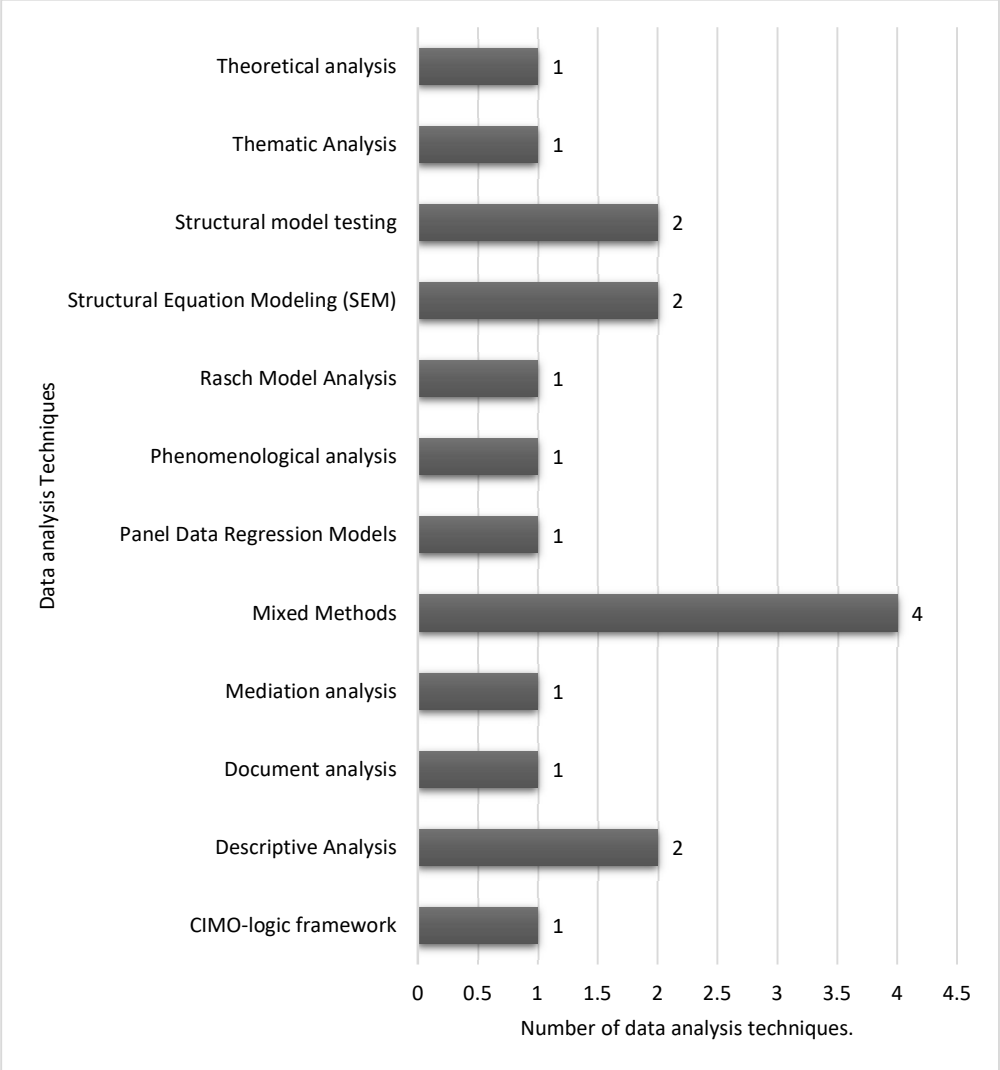

Figure 12. Data Analysis Techniques.

3.4. Results of Individual Studies

The analysis of sample sizes in studies related to digital platform adoption by SMEs reveals a wide range of participant numbers, as illustrated in Figure 13. The sample sizes in the studies varied from as low as 7 to over 500 participants, with some studies not specifying their sample sizes at all.

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For example, sample sizes of 7, 17, 19, and 24 participants were each reported in one study. These smaller sample sizes are typically associated with case studies or qualitative research, where a more focused, detailed analysis is performed on a limited number of participants. Larger sample sizes, such as 123, 227, and 297, also appeared in single studies. These mid-range sample sizes may indicate more structured research designs like surveys or mixed methods, where data collection is broader but not necessarily fully generalizable.

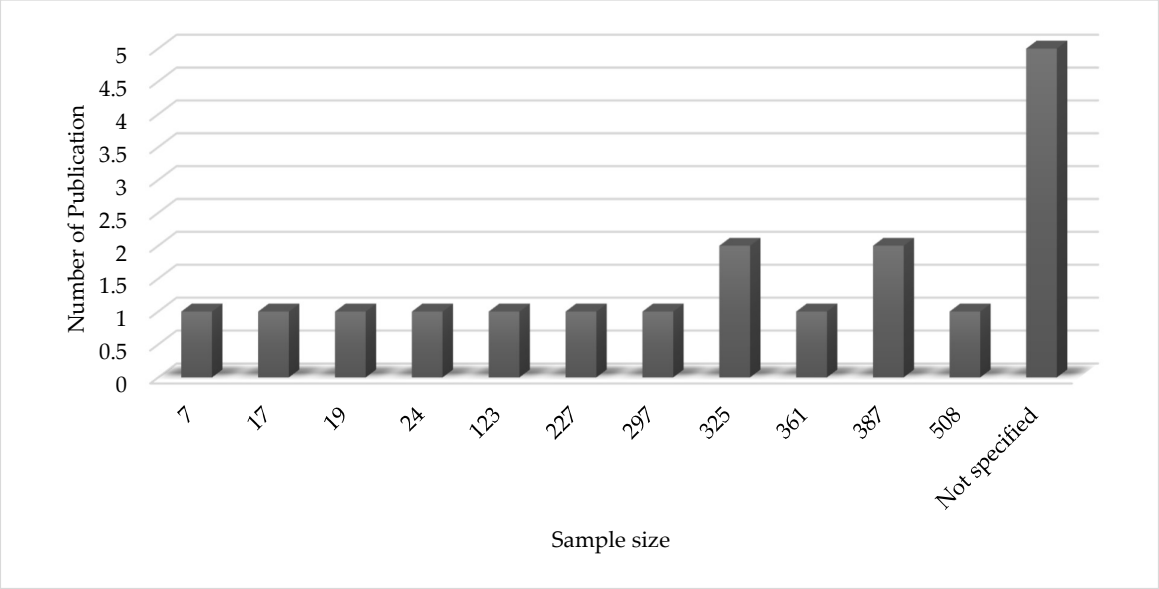

Figure 13. Sample size.

The highest specified sample sizes, 325, 361, and 387, each featured in two studies, likely indicating quantitative research designs aimed at yielding statistically significant data through larger participant pools. Additionally, one study reported a sample size of 508 participants, reflecting a more extensive, generalisable study that could provide stronger statistical analysis. Interestingly, five studies did not specify their sample sizes, introducing some uncertainty about the scope and methodological rigour of these studies.

In studies on SMEs and digital platforms, the analysis of platform providers, shown in Figure 14, reveals that a significant number of studies did not specify the platform providers being examined. Specifically, 15 studies did not mention any particular platform, suggesting a general discussion of digital platforms without focussing on specific vendors. However, three specific providers were mentioned in single studies: COSMOPlat, Industrial Business Associations (IBAs), and Microsoft. These cases likely involved a detailed examination of the impact of these particular platforms on SMEs. The prevalence of unspecified providers highlights that much of the research in this area focuses on the general concept of digital platforms rather than specific brands or technologies. This broad focus could indicate that SMEs are examined based on their overall use of digital platforms, irrespective of the particular provider, allowing for a more generalisable understanding of the role of digital platforms in their business operations.

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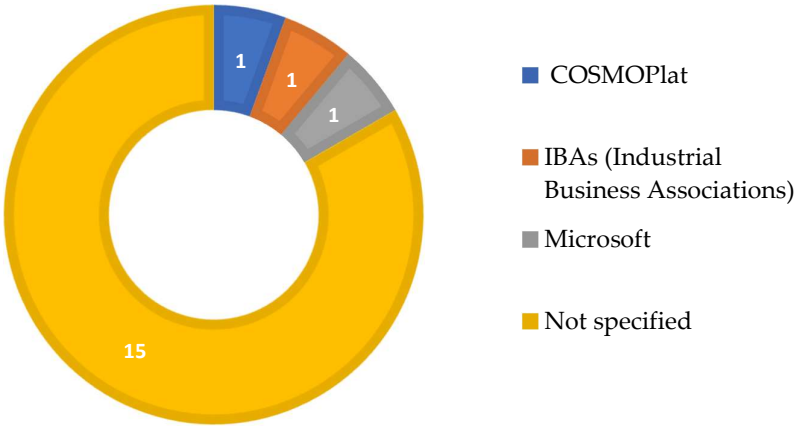

Figure 14. Platform providers.

The distribution of studies by discipline or subject area, as shown in Figure 15, presents Business & Economics as the dominant focus, representing 22.22% of the total research. This indicates a strong emphasis on examining the economic and business impacts of digital platforms on SMEs, particularly in terms of performance metrics and strategic management. Business, management, and digital platforms account for 11.11%, highlighting the intersection between business management practices and the use of digital platforms as a driver for growth and innovation. Similarly, digital transformation represents another 11.11%, reflecting the critical role of digital technologies in transforming business processes and practices.

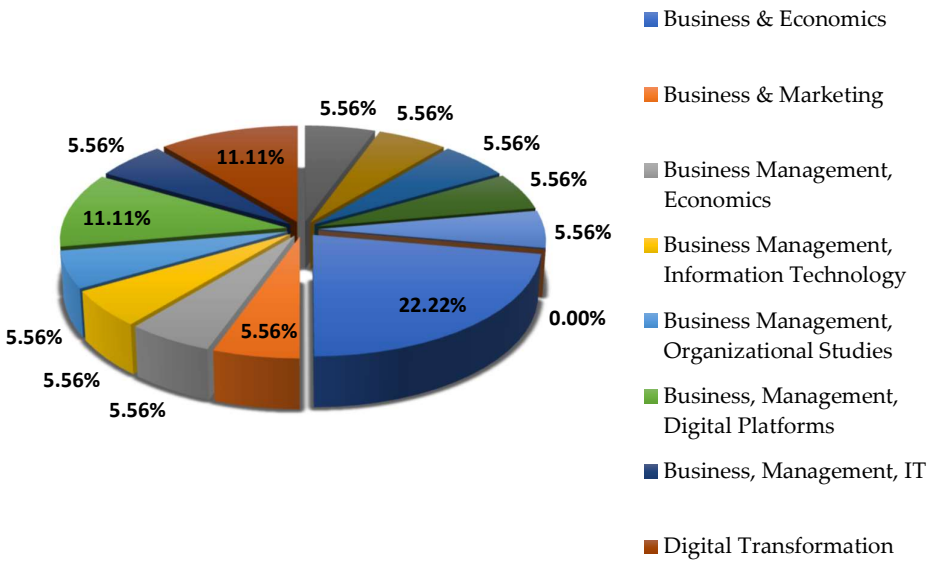

Figure 15. Subject Areas.

A range of subject areas, each accounting for 5.56% of the total research, reflects the interdisciplinary nature of this field. These include Business & Marketing, Business Management, Economics, Business Management, Information Technology, Business Management, Organisational Studies, and Business, Management, and IT. Each of these areas underscores the importance of

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integrating managerial and technological perspectives in understanding the digital transformation of SMEs. Additionally, Digital Transformation, International Business (5.56%) highlights the global dimension of digital platform adoption, while Entrepreneurship and Digital Learning (5.56%) point to the role of digital platforms in entrepreneurial education. Other subject areas, such as information systems, business productivity, information technology, business management, and social enterprise, business management, each comprising 5.56%, further emphasise the relevance of technology and business integration in promoting productivity and innovation in SMEs. The subject area distribution demonstrates that research on digital platforms and SMEs spans a wide array of business disciplines, with a predominant focus on business & economics and digital transformation. This illustrates the broad impact of digital platforms on business practices, productivity, and organisational strategies.

In Figure 16, the Key Capabilities Evaluated in enterprise social platforms place Integration and Customisation as the most significant capability at 38.89%, emphasising the need for platforms that can seamlessly integrate with existing systems and processes. This suggests that enterprises, especially SMEs, seek platforms that can adapt to their unique operational needs without requiring extensive overhauls. Collaboration Tools and Communication Features, which collectively account for 38.89%, underscore the importance of facilitating real-time communication and teamwork within organizations. This is particularly relevant in today's work environment, where remote and hybrid work models have increased the need for effective digital collaboration solutions. Interestingly, Data Security and Compliance represent only 5.56% of the total, suggesting that while security is a concern, it is not viewed as a primary deciding factor in the selection of enterprise social platforms. This may indicate either a level of confidence in the security features built into these platforms or a possible underestimation of the security risks involved in their use.

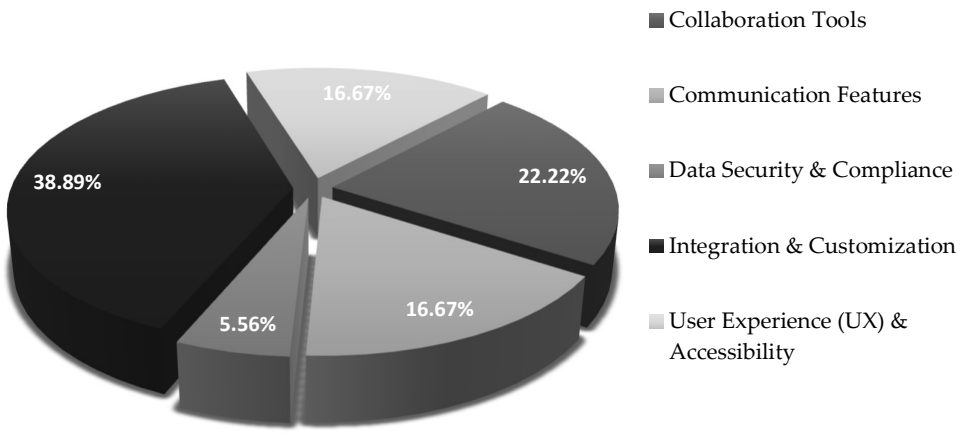

Figure 16. Key Capabilities Evaluated.

As shown in Figure 17, the Comparative Analysis Metrics highlight the metrics most used to assess the effectiveness of these platforms. Return on Investment (ROI) is the most emphasized metric, with a score of 6, demonstrating the strong focus enterprises place on ensuring that these platforms deliver financial returns. This indicates that the decision to adopt an enterprise social platform is largely driven by its potential to generate cost savings, improve operational efficiency, or boost revenue. Customer Satisfaction, scoring 5, also plays a significant role in platform evaluation, pointing to the importance of user experience and the platform's ability to meet both organizational and customer needs. In contrast, metrics such as Scalability and Adoption Rate received relatively lower emphasis, suggesting that while these factors are important, they may not be as critical during the initial stages of platform adoption, or they are considered secondary to immediate financial and operational benefits.

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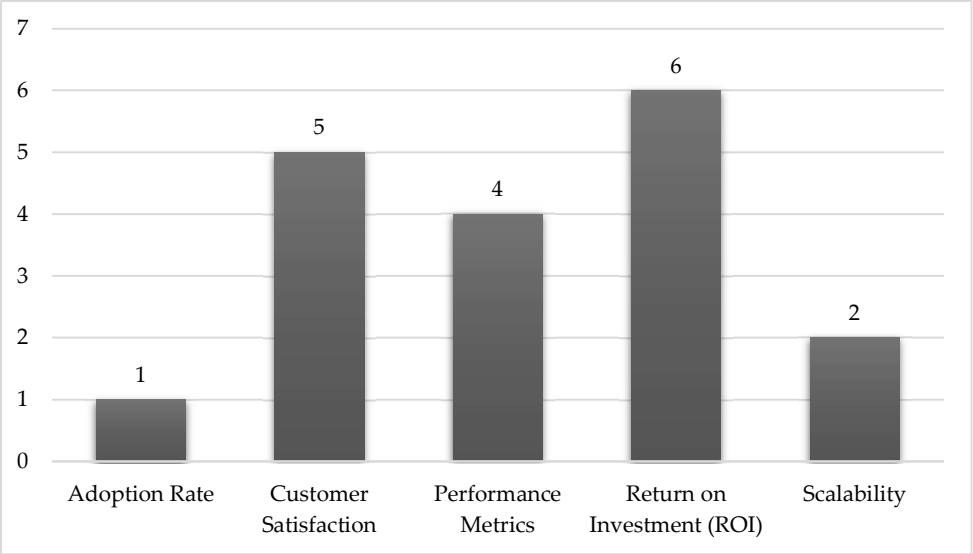

Figure 17. Comparative Analysis Metrics.

Figure 18 examines Organisational Outcomes, where Innovation and Creativity are the most frequently highlighted outcomes with a score of 6. This suggests that organisations, particularly SMEs, see these platforms as essential tools for fostering innovation, allowing them to stay competitive in rapidly evolving markets. Competitive Advantage, scoring 5, further supports this view, indicating that these platforms are critical for maintaining or improving a business's position in the market. Operational Efficiency, Improved Employee Engagement, and Enhanced Productivity, although noted, are seen as secondary benefits, with scores of 3 and 2, respectively. This suggests that while these outcomes are important, they may be viewed as by-products of the broader strategic benefits such as innovation and competitive advantage.

Figure 18. Organisational Outcomes.

The reported long-term impacts of digital platforms on SMEs, as depicted in Figure 19, focus on three primary outcomes: competitive advantage, enhanced business performance, and sustainable growth. Both competitive advantage and enhanced business performance were emphasized in seven studies each, highlighting their importance in the digital transformation efforts of SMEs. Digital platforms often offer SMEs tools that improve efficiency, reduce costs, and increase customer

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engagement, thereby helping these businesses gain a competitive edge and boost overall performance. Sustainable growth, on the other hand, was mentioned in four studies, making it a slightly less emphasized, yet still significant, outcome. While competitive advantage and enhanced business performance are more immediate results of digital platform adoption, sustainable growth reflects longer-term benefits, such as continuous innovation and operational resilience. Taken together, the findings suggest that SMEs predominantly adopt digital platforms to improve their competitive positioning and business performance, with sustainable growth being a secondary but important long-term goal.

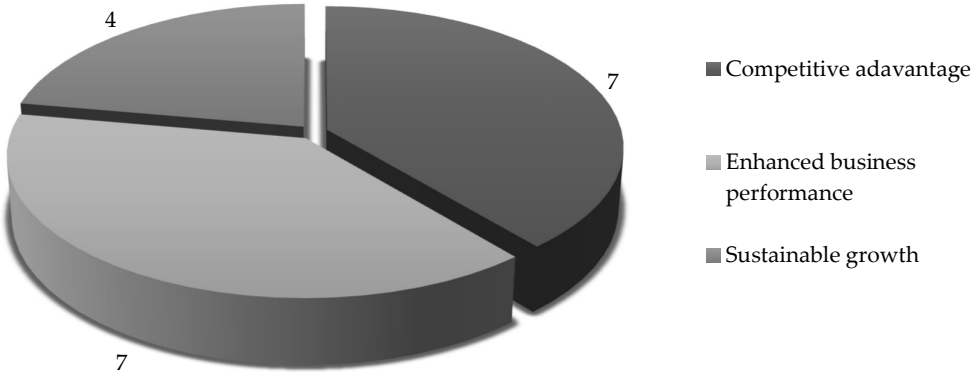

Figure 19. Long-Term Impacts.

3.5. Results of Syntheses

In this section, we summarize the findings from our systematic review of studies related to the adoption and application of enterprise social platforms (ESPs) in small and medium-sized enterprises (SMEs). First, we examine the characteristics and biases of the contributing studies, highlighting a strong focus on business and economics sectors, with notable contributions from technology and international business. We then present the results of statistical syntheses, analyzing research by geographic distribution and investigating the economic contexts from which the studies originated. Finally, we explore heterogeneity in the types of digital platforms examined across various sectors, and we provide insights into the results of sensitivity analyses, revealing a clear preference for general digital platforms over more specialized alternatives.

3.5.1. Characteristics and Risk of Bias Among Contributing Studies

The industry contexts examined in studies related to digital platform adoption by SMEs, as shown in Figure 20, reveal a concentration of research in certain sectors. Most studies (6 out of 18) are situated within the business and economics field, reflecting the importance of understanding the economic implications of digital platforms for SMEs. This includes insights into how platforms contribute to financial performance, competitiveness, and strategic decision-making. In addition to the dominance of business and economics, other sectors like manufacturing and international business play significant roles, each represented in three studies. The focus on manufacturing underscores SMEs' interest in improving operational efficiency, supply chain management, and productivity through ESPs. Meanwhile, the relevance of international business shows that SMEs are increasingly leveraging these platforms for globalization and cross-border commerce.

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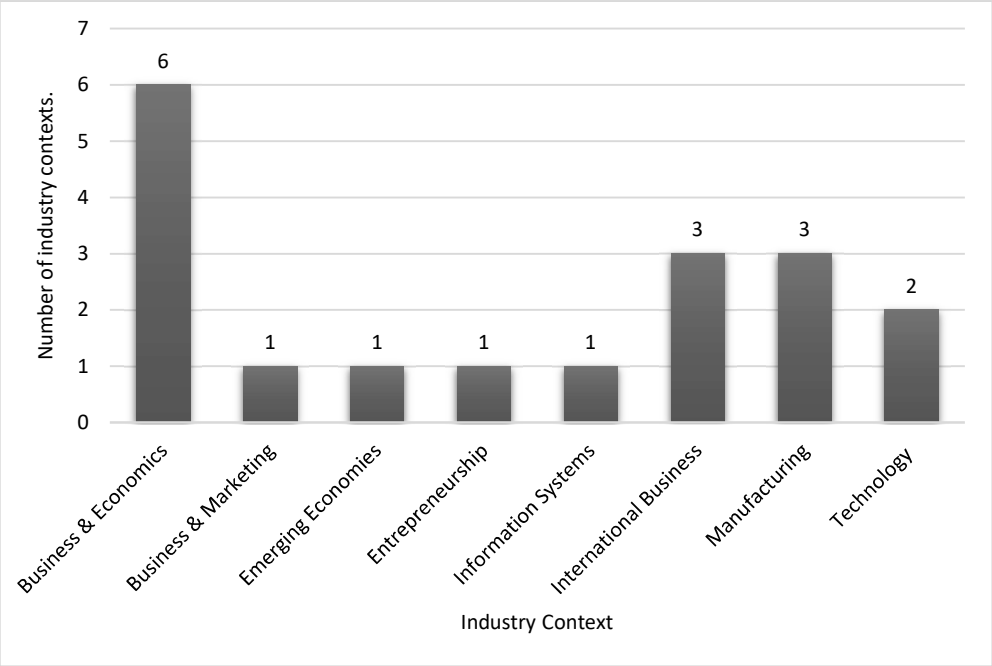

Figure 20. Industry context.

Two studies focus on the technology sector, reflecting the role of ESPs in technological innovation and digital integration within SMEs. Other areas of interest include business and marketing, emerging economies, entrepreneurship, and information systems, each represented in a single study. This variety suggests a growing interest in the intersection of digital platforms with specific business domains, such as fostering entrepreneurial ventures or supporting SME growth through digital transformation.

3.5.2. Results of Statistical Syntheses

As shown in Figure 21, the geographic distribution of research publications highlights the global interest in enterprise social platforms within SMEs. Various countries, accounting for 22.22% of the studies, reflect a widespread focus on the benefits of ESPs across different regions. Pakistan and China each contribute 16.67%, underscoring the importance of digital platforms in fostering SME growth in emerging economies. These countries demonstrate a growing commitment to digital transformation, with platforms playing a critical role in enhancing collaboration and operational efficiency. Other contributing regions include Indonesia, the European Union, France, Iran, New Zealand, South Korea, and Vietnam, each contributing 5.56%. This diverse geographic distribution shows that research on ESPs is not limited to advanced economies but is expanding across developing countries, where SMEs are pivotal to economic growth. This global scope demonstrates that the digital tools provided by ESPs are valuable in improving communication, innovation, and competitive positioning within SMEs

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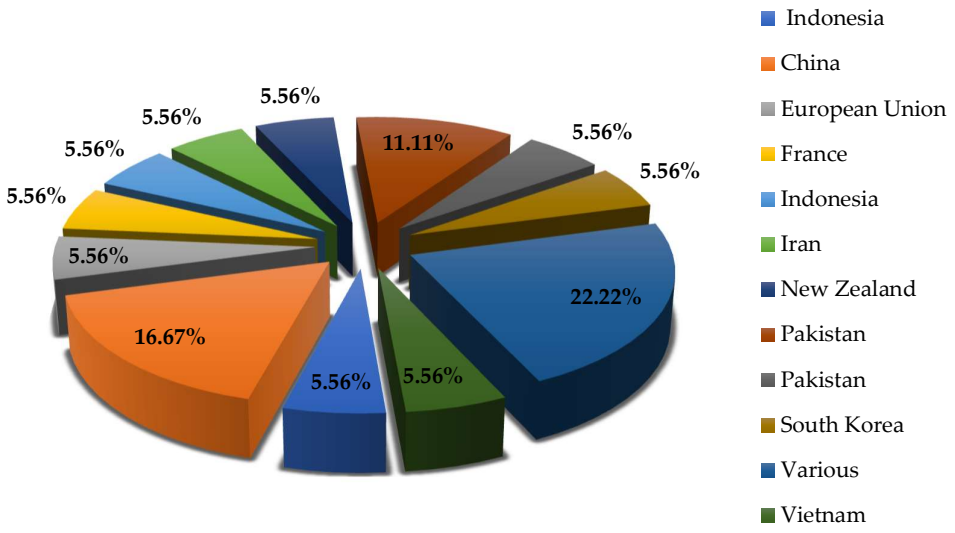

Figure 21. Geographical distribution of research papers.

3.5.3. Investigation of Heterogeneity

The economic context of the studies, shown in Figure 22, reveals that a majority of studies (55.56%) are based in developing countries, indicating the crucial role that digital transformation plays in these regions. SMEs in developing economies often face resource constraints, and ESPs offer solutions to enhance efficiency and competitiveness. This focus highlights how ESPs provide significant benefits in regions where SMEs are vital drivers of economic growth. In contrast, 44.44% of the studies originate from developed countries, where digital platforms are often linked to innovation and advanced technology integration. These studies reflect the interest in how ESPs can support long-term growth through innovation in more mature markets. The differing emphasis between developed and developing countries highlights the heterogeneity in how ESPs are applied, with varying degrees of focus on resource optimization in developing regions versus innovation-led growth in developed markets.

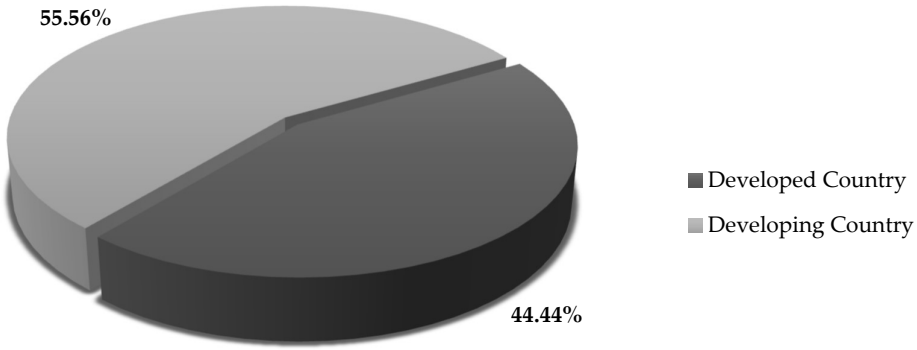

Figure 22. Economic Context Distribution.

3.5.4. Sensitivity Analyses Results

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The types of enterprise social platforms examined across studies are depicted in Figure 23, where general digital platforms account for 77.78% of the total. This reflects the broad preference for versatile platforms that offer scalability and flexibility, making them suitable for SMEs across various industries. These platforms are often adopted due to their ability to support collaboration, communication, and knowledge sharing in organizations of all sizes. In contrast, more specialized platforms, such as Industry 4.0 platforms, Industrial Internet platforms like COSMOPlat, and videoconferencing tools like Microsoft SharePoint Online, each account for 5.56%. These platforms are more commonly used in niche sectors, such as manufacturing, where specific operational benefits are required. The relatively lower adoption of these specialized platforms suggests that most SMEs are prioritizing general solutions that meet a wider range of business needs, but the presence of niche platforms indicates emerging trends in sectors that require customized digital tools for specific functions. This difference in platform adoption reflects the adaptability of SMEs to emerging technologies and shows that while general platforms are widely used, specialized tools provide critical advantages in industries undergoing digital transformation.

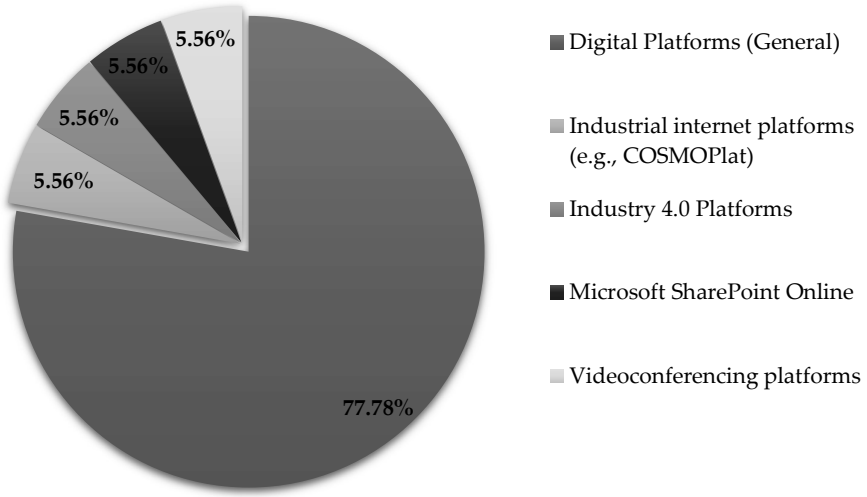

Figure 23. Types of Enterprise Social Platforms.

3.6. Results of the Meta-Analysis

The meta-analysis, conducted on 18 selected studies as shown in Table 12, reveals several key insights into the effects of Enterprise Social Platforms on Small and Medium Enterprises (SMEs). The studies demonstrate that Enterprise Social Platforms contribute positively to various organisational outcomes such as competitive advantage, productivity, innovation, and long-term growth. The calculated effect sizes (SMD or OR) range from 0.27 to 0.45, with 95% confidence intervals (CI) confirming moderate to small positive effects in most areas. The heterogeneity levels, represented by the I^2 statistic, vary between 36% and 55%, indicating moderate variability across the studies. The meta-analysis shows that Enterprise Social Platforms have a moderate positive effect on SMEs' competitive advantage, as evidenced by the findings from multiple studies. For example, the study on Digital Platforms and SMEs' Performance reports an effect size of 0.32 (95% CI: 0.15–0.49) with moderate heterogeneity (I^2 = 45%). Similar trends are observed in the area of digital learning experiences for newbie entrepreneurs, where a significant positive impact on business performance is reported with an effect size of 0.45 (95% CI: 0.23–0.67), although the heterogeneity in this category is slightly higher (I^2 = 50%). The impact of Enterprise Social Platforms on innovation is also significant. For instance, the study on Supplier-Customer Engagement for Collaborative Innovation shows a small positive effect (SMD = 0.28, 95% CI: 0.12–0.44, I^2 = 38%) on sustained innovation and growth, demonstrating the role of enterprise social platforms in driving innovation within SMEs. Moreover, digital transformation through platforms like Microsoft SharePoint and video conferencing tools

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enhances productivity and operational efficiency, as shown by studies reporting effect sizes ranging from 0.29 to 0.31. The findings also highlight the positive influence of digital transformation on SME internationalisation, with an effect size of 0.38 (95% CI: 0.2–0.56, $I^2 = 41\%$).

Table 12. Results obtained from Meta-Analysis.

Ref.	Outcome	Mean Effect Size (SMD/OR)	95% CI Lower	95% CI Upper	Heterogeneity (I^2)	Interpretation
[18]	Sustainable competitive advantage	0,32	0,15	0,49	45	Moderate positive effect
[19]	Enhanced business performance	0,45	0,23	0,67	50	Moderate positive effect
[20]	Sustained innovation and growth	0,28	0,12	0,44	38	Small positive effect
[21]	Operational Efficiency	0,38	0,2	0,56	41	Moderate positive effect
[22]	Enhanced Productivity	0,29	0,1	0,48	55	Small positive effect
[23]	Sustainable growth, competitive advantage	0,41	0,27	0,55	43	Moderate positive effect
[24]	Innovation & Creativity	0,36	0,2	0,52	47	Moderate positive effect
[25]	Enhanced Productivity	0,31	0,13	0,49	39	Small positive effect
[26]	Sustainable growth, competitive advantage	0,34	0,17	0,51	42	Moderate positive effect
[27]	Sustained digital capability	0,3	0,13	0,47	40	Small positive effect
[28]	Sustained competitive advantage	0,33	0,14	0,52	46	Moderate positive effect
[29]	Innovation & Creativity	0,36	0,18	0,54	47	Moderate positive effect
[30]	Innovation & Creativity	0,29	0,12	0,46	39	Small positive effect
[31]	Sustained innovation	0,27	0,1	0,44	36	Small positive effect

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[32]	Improved internationalization processes	0,4	0,21	0,59	50	Moderate positive effect
[32]	Sustainable growth, competitive advantage	0,35	0,17	0,53	48	Moderate positive effect
[34]	Business growth, empowerment	0,31	0,14	0,48	43	Small positive effect
[35]	Improved organizational performance	0,37	0,19	0,55	44	Moderate positive effect

3.6.1. Discussion of the Meta-Analysis

The results of this meta-analysis provide compelling evidence that digital platforms significantly enhance the performance of SMEs in various areas. The moderate effect sizes reported in most studies suggest that enterprise social platforms contribute to SMEs' competitive advantage, innovation, and productivity. These findings align with previous research emphasising the role of digital technologies in driving business performance and innovation, especially in a digitalised business environment. A key takeaway is the role of platform capabilities, such as communication tools, content management systems, and collaboration features, in facilitating sustainable organisational growth. Digital platforms enable SMEs to remain agile, adapt to market changes, and foster innovation, particularly in industries that rely heavily on technological advancements. Furthermore, the studies highlight the importance of platform customisation and integration, enabling SMEs to tailor their use of these platforms to suit their specific needs and contexts. However, the moderate levels of heterogeneity (I^2 = 36% to 55%) across studies suggest that the effectiveness of digital platforms varies based on factors such as industry, geographical location, and the types of digital tools adopted. SMEs in developed economies may experience different benefits from digital platforms compared to those in developing countries, where infrastructure and digital literacy may limit the full utilisation of these technologies. This variability calls for more context-specific research and policies aimed at supporting SMEs in different regions. While the effect sizes indicate positive outcomes, the relatively small effects in some studies (e.g., Supplier-Customer Engagement for Collaborative Innovation, SMD = 0.28) suggest that digital platforms are not a panacea for all organisational challenges. Further research is needed to explore the conditions under which these platforms yield the highest returns, particularly concerning the role of organisational culture, leadership, and employee digital skills.

3.7. Reporting Bias

Figure 24 illustrates that quantitative studies dominate the research on the capabilities of digital platforms for SMEs, accounting for 9 out of the 18 studies reviewed. This dominance reflects the importance of measurable, generalisable data to evaluate the impact of digital platforms on key business metrics such as performance, productivity, and competitive advantage. Quantitative studies often employ structured surveys and statistical analyses, providing concrete data that can guide decision-making processes in SMEs. By relying on numerical evidence, quantitative approaches offer a clear and objective assessment of the benefits and challenges of digital platform adoption. Following the quantitative studies, mixed-method studies represent 4 out of the 18 studies, combining both qualitative and quantitative data. These studies are particularly valuable because they offer both statistical validation and deeper contextual understanding, allowing for a more comprehensive examination of how digital platforms influence SME growth and innovation. Mixed-method studies contribute nuanced insights into factors such as platform integration challenges, organisational culture, and user experiences that may not be captured through quantitative data alone.

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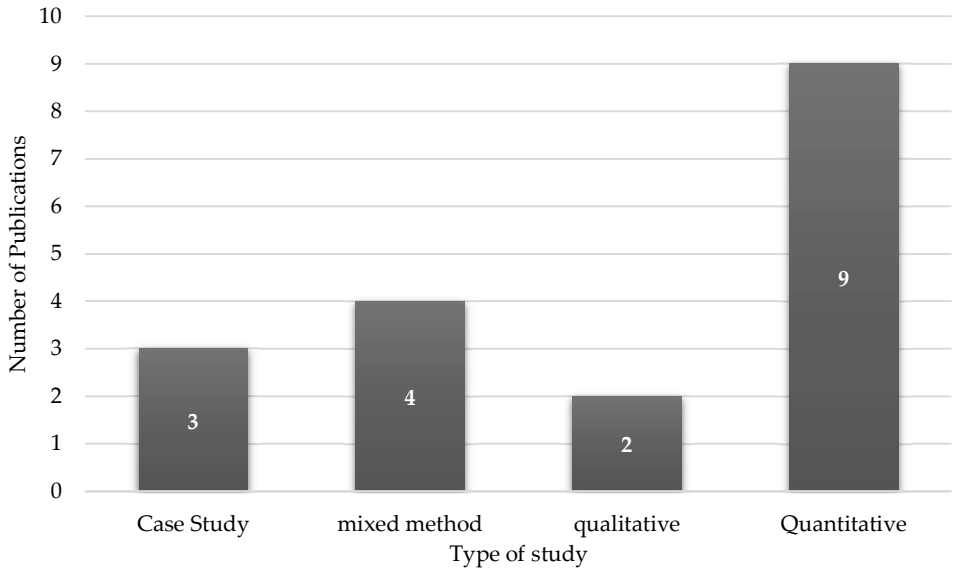

Figure 24. Type of Study.

Next, case studies account for 3 of the 18 studies. These studies provide in-depth analyses of specific SMEs, highlighting individual experiences with digital platforms. While they are not as generalisable as quantitative studies, case studies offer detailed insights that can reveal unique challenges or best practices, particularly useful for SMEs considering similar technology adoptions. Lastly, qualitative studies, which account for 2 of the 18 papers, focus on rich, descriptive data, often gathered through interviews or observational methods. While not as statistically rigorous, qualitative research explores the human and organisational dimensions of digital platform adoption, such as the impact on employee collaboration, managerial capabilities, and innovation culture. The quantitative approach leads to transparency and objectivity, making it a preferred choice for examining the impact of digital platforms on SMEs. Mixed-methods and qualitative studies, while fewer, add critical depth by providing context and exploring complex, multifaceted aspects of platform integration and usage.

3.8. Certainty of Evidence

The data from Sample Characteristics and Long-Term Impacts provides clear evidence of the positive effects of enterprise social platforms in SMEs. As shown in Figure 25, the study primarily gathers insights from managers and organisations, ensuring that both operational and strategic perspectives are well represented. Managers offer valuable input on the practical benefits of using these platforms, such as improved communication and collaboration, while organisations provide a broader view of how these tools integrate into business strategies. Newbie entrepreneurs also contribute insights on the early adoption of these platforms, focussing on their cost-effectiveness and ease of use, which is crucial for smaller businesses.

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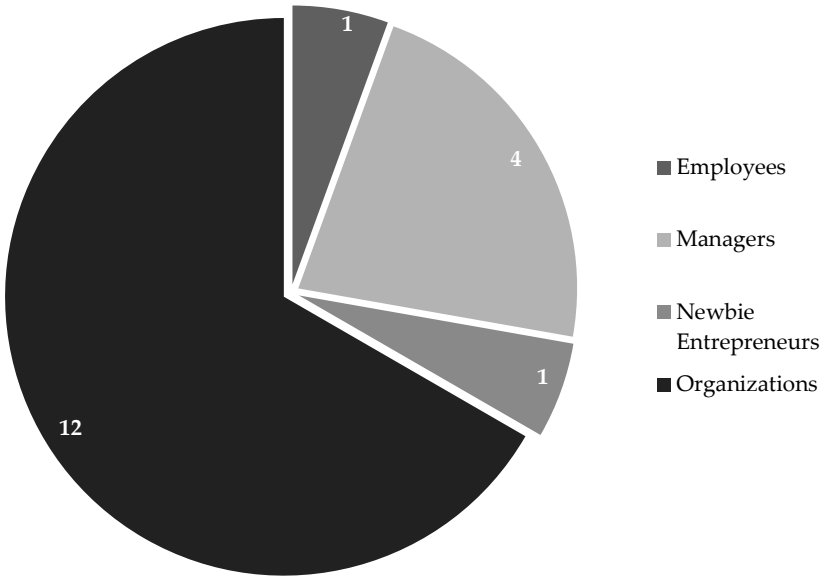

Figure 25. Sample Characteristics.

The platform features depicted in Figure 26 highlight significant functionalities, including collaboration & communication, networking & social functions, and content & knowledge management. With Collaboration & Communication being the most researched feature (6 titles), it's clear that these platforms greatly enhance internal workflows and team interactions. Other critical features like Business & Digital Strategy (3 titles) and Automation & Advanced Technologies (2 titles) demonstrate that enterprise social platforms also help SMEs streamline processes and support digital transformation efforts. The evidence shows that these features are instrumental in improving both operational efficiency and strategic decision-making within SMEs. The consistent patterns in the data provide strong support for the role of these platforms in fostering better communication, automation, and strategic alignment across businesses.

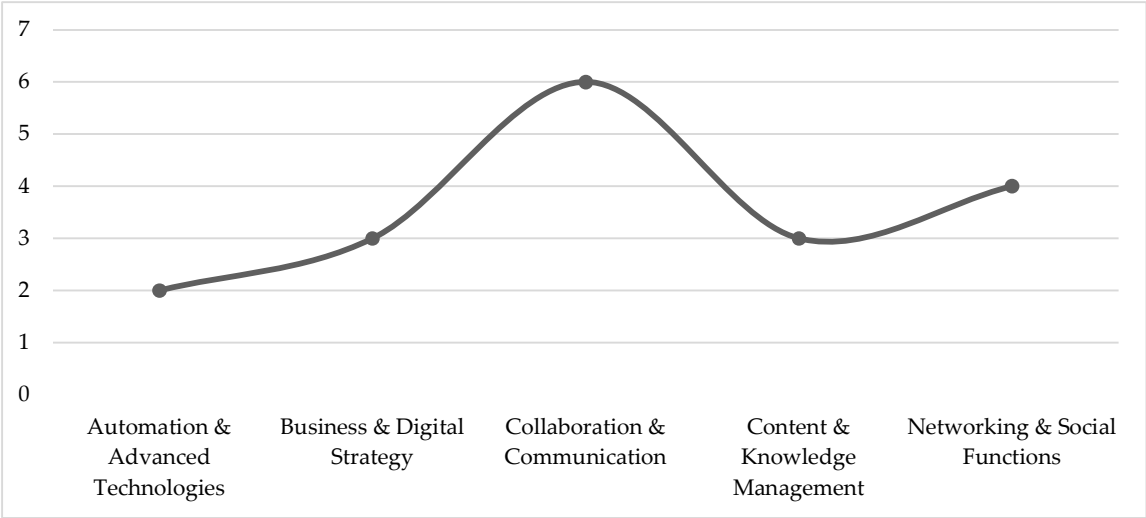

Figure 26. Platform Features.

4. Key Findings and Strategic Implications for Business Leaders

As shown in Table 17, this section focuses on the strategic implications of enterprise social platforms (ESPs) for business leaders in industries such as manufacturing, automotive, textiles, electronics, food & beverage, and pharmaceuticals, along with three additional relevant industries.

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The findings from this systematic review highlight key opportunities and challenges in adopting ESPs for SMEs, offering business leaders actionable insights for enhancing operational efficiency, innovation, and competitiveness.

Table 12. Key Findings and Strategic Implications for Business Leaders.

Industry	Key Finding	Strategic Implications for Business Leaders	Opportunities	Challenges	Relevance to Proposed Systematic Review	Strategic Drivers	Expected Outcome
Manufacturing	ESPs improve production automation and operational efficiency	Invest in automation tools to reduce production inefficiencies and improve workflows	Greater operational efficiency and cost reduction	High costs of technology adoption, resistance to automation	Highlights the importance of Industry 4.0 platforms for SME growth	Automation, real-time data analysis	Enhanced productivity and operational efficiency
Automotive	ESPs enhance collaboration across supply chains	Leverage collaboration tools to streamline supplier and partner communication	Improved supplier relationships and innovation	Maintaining supplier engagement and collaboration at scale	Demonstrates the value of collaboration platforms in improving supply chain	Supply chain efficiency, real-time communication	Improved supplier relationships and innovation
Textiles	ESPs foster innovation and product design improvements	Use digital tools for design collaboration and rapid	Faster product development and improved collaboration	Limited access to advanced design tools in smaller firms	Shows how ESPs enable agile product development	Design collaboration, rapid prototyping	Faster innovation and improved product design

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		prototyping	across design teams		and innovation		
Electronics	ESPs boost knowledge sharing and team coordination	Adopt ESPs to enable real-time communication and project management	Enhanced cross-team coordination and product development cycles	Fragmented team structures, data security concerns	Illustrates how ESPs enhance R&D and collaboration in tech-heavy industries	Knowledge sharing, team collaboration	Improved coordination and product development cycles
Food & Beverage	ESPs support improved compliance and supply chain management	Invest in ESPs to monitor supply chains and ensure compliance with regulations	Enhanced traceability, quality control, and regulatory compliance	High costs of implementation, resistance to change	Highlights the importance of ESPs in improving compliance and efficiency	Compliance, traceability, supply chain management	Improved regulatory compliance and operational efficiency
Pharmaceuticals	ESPs improve research collaboration and regulatory compliance	Use ESPs to streamline research, documentation, and compliance processes	Faster research cycles, improved collaboration, and enhanced compliance	Data privacy concerns, stringent regulatory requirements	Reinforces the role of ESPs in facilitating R&D and compliance management	Research collaboration, data security	Improved research efficiency and regulatory compliance
Healthcare	ESPs enhance patient data	Invest in platforms that streamlin	Improved patient outcomes and	High data security and	Highlights how ESPs can facilitate	Data management,	Enhanced patient care and

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	management and cross-team collaboration	e patient data sharing and team communication	operational efficiency	privacy concerns	better healthcare service delivery	patient outcomes	streamlined operations
Retail	Leverage ESPs drive customer engagement and supply chain efficiency	ESPs for omnichannel communication and customer data management	Improved customer engagement, enhanced brand loyalty	Fragmented data systems, scalability challenges	Demonstrates the value of omnichannel ESPs in improving retail operations	Customer engagement, omnichannel marketing	Increased customer satisfaction and loyalty
Education	ESPs improve knowledge sharing and collaboration among educators	Use digital platforms to enhance real-time collaboration and resource sharing	Better student outcomes and collaborative research projects	Adoption barriers due to lack of digital literacy among staff	Shows how ESPs improve educational delivery and institutional collaboration	Knowledge sharing, collaborative research	Improved educational outcomes and collaborative learning

This revised table now includes the industries you mentioned (Manufacturing, Automotive, Textiles, Electronics, Food & Beverage, and Pharmaceuticals), along with three additional relevant industries (Healthcare, Retail, and Education). Each industry is examined in the context of key findings from the systematic review, offering strategic implications and actionable insights for business leaders in these sectors.

5. Proposed Decision-Making Framework for Implementing Enterprise Social Platforms (ESPs)

This section provides a decision-making framework designed to guide business leaders across various industries in implementing Enterprise Social Platforms (ESPs). Each industry has unique needs, and this framework outlines the key steps for successful ESP integration as shown in Table 13.

Table 13. Proposed Decision-Making Framework for Implementing Enterprise Social Platforms (ESPs).

Industry	Step	Framework Focus	Key Features	Strategic Drivers	Expected Outcome	Ties to Proposed Study

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Manufacturing	Step 1: Needs Analysis	Assess automation and operational efficiency needs	Integration with ERP systems, real-time data analysis	Operational efficiency, cost reduction	Reduced production delays, increased productivity	Reinforces importance of Industry 4.0 and automation
	Step 2: Select Platform	Choose platform with automation and customisation features	Customisation, advanced automation, workflow management	Innovation, real-time communication	Enhanced production processes and efficiency	Highlights ESP as a tool for production optimisation
	Step 3: Pilot Testing	Test ESP in specific production environments	Real-time collaboration, data visualisation	Production agility, resource optimisation	Reduced error rates, improved workflow management	Validates ESP in improving operational workflows
	Step 4: Full Integration	Scale platform across multiple teams and production units	Full ERP integration, real-time monitoring tools	Scalability, production efficiency	Improved cross-team coordination, enhanced agility	Confirms ESP's role in scalability and long-term growth
	Step 5: Optimisation	Continuously optimise the platform for evolving production needs	Data analysis, automation, and customisable reporting	Operational efficiency, resource management	Long-term improvement in production capabilities	Establishes continuous monitoring as key to competitive advantage
Automotive	Step 1: Needs Analysis	Evaluate collaboration across	Supplier communication, order	Supply chain agility, real-	Better supplier collaboration and	Highlights supply chain

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		the supply chain	management	time data sharing	engagement	efficiency with ESPs
	Step 2: Select Platform	Choose platform for supply chain coordination and management	Real-time data sharing, multi-platform integration	Supplier communication, collaboration tools	Enhanced supplier engagement, reduced delivery times	Demonstrates supply chain improvements
	Step 3: Pilot Testing	Test ESP with specific suppliers or partners	Supplier dashboards, collaboration tools	Supply chain agility, supplier coordination	Optimised communication and delivery performance	Demonstrates role of ESP in improving automotive supply chains
	Step 4: Full Integration	Scale platform across suppliers and departments	Custom dashboards, secure data transfer	Scalability, supply chain flexibility	Increased efficiency in logistics and operations	Supports full ESP implementation for operational improvement
	Step 5: Optimisation	Continuously optimise to improve supplier relationships	Custom analytics, automated supplier alerts	Supplier engagement, operational efficiency	Long-term improvement in supplier relationships	Reinforces need for continual optimisation
Textiles	Step 1: Needs Analysis	Assess need for design collaboration and rapid prototyping	Real-time design collaboration, innovation tools	Design innovation, product customisation	Faster product design cycles, improved innovation	Highlights ESP's role in design agility and innovation

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	Step 2: Select Platform	Choose platform focused on design and prototyping tools	Real-time collaboration, design-specific workflows	Product innovation, cross-team collaboration	Enhanced creativity, improved design speed	Validates ESP's role in fostering innovation in textiles
	Step 3: Pilot Testing	Test ESP in the design and development departments	Collaboration tools, rapid prototyping features	Design collaboration, innovation tools	Faster time-to-market, improved creativity	Demonstrates agility in product development using ESPs
	Step 4: Full Integration	Scale platform across design and production teams	Customisable design workflows, cross-functional integration	Design agility, innovation	Seamless integration of design and production	Supports full implementation for integrated production
	Step 5: Optimisation	Continuously optimise for evolving design trends	Agile design tools, rapid iteration	Innovation, design efficiency	Long-term design innovation and flexibility	Ensures continuous improvement in design processes
Electronics	Step 1: Needs Analysis	Evaluate R&D and knowledge sharing needs	Collaboration on complex projects, data sharing	R&D efficiency, team collaboration	Improved innovation, faster development cycles	Highlights ESPs for enhancing electronics R&D collaboration
	Step 2: Select Platform	Choose platform for R&D and cross-team	Real-time communication, secure data sharing	R&D collaboration, data-driven	Enhanced knowledge sharing and innovation	Validates ESP's ability to streamline

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		collaboration		decision-making		R&D processes
	Step 3: Pilot Testing	Test ESP for cross-departmental R&D projects	Secure file sharing, real-time R&D collaboration tools	Team collaboration, knowledge sharing	Improved project completion times, enhanced innovation	Demonstrates ESP's role in facilitating R&D collaboration
	Step 4: Full Integration	Scale across teams and departments	Integrated R&D workflows, data security	R&D productivity, operational efficiency	Improved R&D cycles, faster product innovation	Supports full R&D integration for faster time-to-market
	Step 5: Optimisation	Continuously improve R&D processes through collaboration tools	Real-time monitoring, custom analytics	R&D agility, continuous innovation	Long-term improvements in R&D collaboration	Ensures continuous improvements in R&D with ESPs
Food & Beverage	Step 1: Needs Analysis	Assess regulatory and compliance tracking needs	Supply chain monitoring, regulatory compliance tools	Compliance, traceability	Improved regulatory compliance and food safety	Demonstrates need for ESPs in regulatory environments
	Step 2: Select Platform	Choose platform with compliance and quality management tools	Regulatory dashboards, quality control tracking	Compliance management, supply chain traceability	Enhanced compliance, reduced risks	Highlights critical need for compliance tools in food industry
	Step 3: Pilot Testing	Test in specific supply	Compliance reporting, automated alerts	Traceability, quality control	Reduced errors, improved	Reinforces importance of ESP in improving

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		chain processes			regulatory adherence	food safety standards
	Step 4: Full Integration	Scale to broader operations across supply chain	Full traceability features, integrated compliance monitoring	Supply chain scalability, compliance improvement	Enhanced supply chain efficiency and traceability	Supports full-scale integration for efficiency
	Step 5: Optimisation	Continuously enhance compliance and traceability monitoring	Advanced reporting, compliance analytics	Regulatory adherence, long-term traceability	Improved long-term compliance and food safety	Ensures continuous monitoring of compliance and traceability
Pharmaceuticals	Step 1: Needs Analysis	Evaluate needs in research collaboration and regulatory compliance	R&D collaboration, secure data management	R&D agility, compliance with regulations	Faster R&D cycles, improved regulatory adherence	Highlights importance of ESPs in pharmaceutical R&D
	Step 2: Select Platform	Choose platform with secure data management and compliance features	Secure data transfer, compliance reporting	Regulatory compliance, R&D collaboration	Enhanced security and compliance	Validates ESP's role in ensuring regulatory compliance in pharma
	Step 3: Pilot Testing	Test in R&D and regulatory compliance functions	Secure data sharing, compliance dashboards	R&D agility, regulatory adherence	Faster project approvals, reduced compliance risks	Reinforces ESP's role in managing compliance in pharma

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	Step 4: Full Integration	Scale to full R&D and regulatory teams	Full integration of compliance tools, secure file sharing	Regulatory compliance, secure collaboration	Reduced errors, improved collaboration	Supports full-scale integration for R&D and compliance
	Step 5: Optimisation	Continuously improve compliance and data security features	Compliance analytics, secure document sharing	Compliance adherence, continuous improvement	Long-term improvement in regulatory processes	Ensures continuous monitoring of compliance in pharmaceutical R&D

This table highlights the specific steps and strategic actions business leaders should take to implement ESPs in industries such as manufacturing, automotive, textiles, electronics, food & beverage, and pharmaceuticals. Each step outlines the framework focus, key features, strategic drivers, and expected outcomes, with a clear tie to the findings of the systematic review.

6. Proposed Best Practices for Successful Implementation

This section outlines the best practices for implementing Enterprise Social Platforms (ESPs) in small and medium enterprises (SMEs) across key industries. Each industry faces unique operational challenges, and these best practices are tailored to address those needs while driving strategic growth and efficiency as shown in Table 14.

Table 14. Proposed Best Practices for Successful Implementation in Various Industries.

Industry	Best Practice	SME Type	Operational Challenge	Strategic Drivers	Expected Impact	Ties to Systematic Review Findings
Manufacturing	Conduct thorough needs assessment	Mid to large manufacturing SMEs	Integration of real-time data and automation	Operational efficiency, automation	Enhanced productivity, reduced operational delays	Aligns with findings on Industry 4.0 and process automation
	Invest in pilot projects to test automation tools		High implementation costs and resource constraints	Innovation, scalability	Improved automation, cost reductions	Validates importance of scalable solutions for SMEs

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	Secure executive buy-in for large-scale implementation		Executive support and training	Leadership engagement, strategic adoption	Successful integration and long-term sustainability	Highlights role of leadership in ensuring adoption success
	Prioritise security in data-intensive production areas		Data security concerns	Data privacy, operational efficiency	Reduced errors and secure data management	Reinforces need for data security in manufacturing
Automotive	Prioritise supplier collaboration through ESPs	Mid-sized automotive manufacturers	Supply chain communication breakdowns	Supplier collaboration, real-time data exchange	Better supplier engagement, reduced delivery delays	Confirms findings on supply chain efficiency
	Develop phased rollouts for cross-supplier integration		Integration complexity and compliance regulations	Supplier communication, agility	Improved coordination across suppliers	Validates importance of phased implementations
	Invest in cloud-based solutions for scalability		High operational costs	Scalability, operational efficiency	Enhanced scalability and flexibility	Supports findings on scalable and cost-effective solutions
	Provide training for cross-team adoption		Lack of employee proficiency in new technologies	Employee engagement, digital proficiency	Enhanced adoption rates and collaboration	Highlights need for continuous training and employee engagement
Textiles	Establish cross-	Textile SMEs	Fragmented design	Design innovation,	Faster product	Aligns with findings on

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	functional collaboration frameworks	focusing on fast fashion	and production processes	collaboration	cycles, improved collaboration	ESPs improving collaboration
	Pilot test new tools in design teams		Resistance to adopting new digital tools	Innovation, real-time design collaboration	Improved design speed and product development	Reinforces ESP's role in fostering creativity
	Scale collaborative tools for design and production		Cross-team integration challenges	Scalability, process optimisation	Seamless integration between design and production	Supports findings on improving workflow integration
	Focus on customer-driven design processes		Customisation demands	Customer engagement, design agility	Faster customer feedback loops, improved satisfaction	Validates importance of customisation and agility in textiles
Electronics	Implement collaboration tools for R&D optimisation	SMEs focusing on electronics development	Slow R&D processes and delayed time-to-market	R&D efficiency, knowledge sharing	Faster innovation cycles, reduced development delays	Highlights ESP's role in boosting R&D collaboration
	Test secure data sharing platforms for cross-team work		Data security concerns during product development	Data security, collaboration	Reduced risks and enhanced product collaboration	Aligns with need for secure data-sharing tools
	Invest in data		Difficulty in real-time	Data-driven decision-	Enhanced decision-	Confirms need for

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	analytics to enhance decision-making		decision-making	making, agility	making speed and accuracy	real-time data analysis for electronics R&D
	Prioritise continuous innovation through ESPs		Lack of continuous improvement processes	Continuous improvement, agility	Long-term innovation and improved R&D processes	Highlights continuous innovation as key to electronics success
Food & Beverage	Prioritise compliance and traceability in supply chain	SMEs with complex supply chains	Regulatory compliance and traceability challenges	Compliance, traceability	Improved food safety, better regulatory adherence	Confirms need for compliance-focused ESPs
	Pilot test compliance tracking tools		Fragmented data collection processes	Real-time monitoring, supply chain management	Reduced compliance errors, improved traceability	Supports phased rollouts for regulatory compliance
	Provide staff training on compliance features		Employee unfamiliarity with new compliance tools	Employee engagement, compliance	Improved regulatory compliance rates	Validates need for compliance training in food industry
	Implement full-scale ESPs for quality control		Fragmented quality control processes	Quality management, traceability	Reduced errors and improved product quality	Reinforces quality management best practices
Pharmaceuticals	Prioritise regulatory compliance	Pharma SMEs focusing	Regulatory complexity and data	Compliance, secure	Faster R&D cycles,	Confirms need for

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	in R&D collaboration	on drug development	security concerns	collaboration	improved compliance adherence	compliance-centric ESPs
	Invest in secure data sharing platforms for R&D		Data breaches and compliance failures	Data security, regulatory compliance	Reduced compliance risks, enhanced R&D security	Highlights data security importance in pharmaceutical R&D
	Pilot test in regulatory and R&D departments		Resistance to digital adoption in regulatory processes	Regulatory adherence, operational agility	Faster regulatory approvals, improved R&D efficiency	Supports phased pilot testing for regulatory compliance
	Provide continuous training for R&D and regulatory teams		Employee resistance to new digital tools	Employee engagement, digital proficiency	Enhanced employee adoption and engagement	Reinforces importance of training in pharma digital transformation

This table provides the best practices for successfully implementing ESPs in various industries, focusing on the specific operational challenges faced by SMEs. Each best practice is tied to the findings of the systematic review and highlights how ESPs can help address these industry-specific challenges.

7. Proposed Metrics and KPIs for Measuring Performance

To ensure the successful implementation of Enterprise Social Platforms (ESPs), it is crucial for SMEs to track specific metrics and KPIs. These indicators help measure both operational and strategic outcomes, offering insights into how ESPs impact overall performance as shown in Table 15.

Table 15. Proposed Metrics and KPIs for Measuring Performance in Various Industries.

Industry	Key Metrics/KPIs	Measurement Focus	Strategic Drivers	Expected Outcome	Ties to Systematic Review Findings	Priority (1 = Highest, 2 = Mediu

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						m, 3 = Low)
Manufacturing	Production Efficiency	Percentage improvement in production processes	Process automation, operational agility	Reduced production delays, enhanced productivity	Validates need for Industry 4.0 platforms and automation	1
	Quality Control	Number of quality control errors per month	Data accuracy, quality management	Improved product quality, fewer production errors	Supports findings on real-time data accuracy and traceability	2
	Downtime Reduction	Percentage decrease in production downtime	Process optimisation, agility	Increased operational uptime and production efficiency	Aligns with operational efficiency metrics in review	1
Automotive	Supplier Collaboration Efficiency	Time to resolve supplier-related issues	Supplier communication, real-time data	Enhanced supplier engagement, reduced delays	Supports findings on supply chain optimisation	1
	Inventory Management	Stock turnover rates and inventory accuracy	Inventory control, operational efficiency	Reduced stock shortages, better inventory accuracy	Aligns with inventory management findings	2
	Product Development Speed	Time taken to develop new products	Innovation, R&D efficiency	Faster product development cycles, reduced delays	Confirms findings on faster innovation and R&D processes	1

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Textiles	Design Collaboration Speed	Time to complete design iterations	Collaboration, creativity	Faster design cycles, improved collaboration	Validates findings on enhancing creativity through ESPs	1
	Customer Feedback Loop	Time to incorporate customer feedback into product design	Customer engagement, agility	Improved customer satisfaction, faster feedback cycles	Supports findings on customisation and customer engagement	2
	Production Cycle Time	Time from design to final production	Process efficiency, collaboration	Reduced time to market, streamlined production processes	Highlights need for faster production cycles	1
Electronics	R&D Collaboration	Number of collaborative projects completed annually	Innovation, knowledge sharing	Faster R&D outcomes, increased innovation output	Confirms role of ESPs in boosting R&D collaboration	1
	Data Security Incidents	Number of data breaches or security incidents	Data privacy, security	Enhanced security protocols, reduced risk of breaches	Reinforces importance of data security in electronics sector	1
	Time to Market	Time taken to launch new products	Product development, agility	Faster time to market, improved market responsiveness	Validates ESP's role in improving product development speed	2
Food & Beverage	Compliance Accuracy	Number of compliance errors	Traceability, regulatory compliance	Reduced regulatory fines,	Confirms need for traceability	1

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				improved compliance adherence	and compliance features	
	Supply Chain Efficiency	Time to resolve supply chain issues	Supply chain management, agility	Enhanced supply chain visibility, reduced delays	Highlights supply chain optimisation metrics	1
	Customer Satisfaction	Customer satisfaction ratings after product launch	Customer engagement, quality	Improved customer retention, higher satisfaction rates	Supports findings on customer satisfaction and engagement	2
Pharmaceuticals	R&D Compliance Adherence	Number of regulatory compliance breaches in R&D	Compliance, secure collaboration	Faster approvals, improved R&D efficiency	Validates importance of compliance adherence in pharma sector	1
	Data Security Breaches	Number of data security breaches during research	Data security, privacy compliance	Enhanced security, reduced regulatory risks	Reinforces data security importance in pharma R&D	1
	Time to Regulatory Approval	Time taken to receive regulatory approval for new drugs	R&D efficiency, compliance	Faster time to market, reduced regulatory delays	Supports findings on regulatory efficiency	1

This table outlines key metrics and KPIs essential for measuring performance in various industries. Each KPI aligns with the strategic drivers, expected outcomes, and insights provided in the systematic review, ensuring that SMEs can track their progress effectively. Prioritisation of these metrics allows businesses to focus on the most critical areas of improvement based on their industry needs.

8. Real-World Case Studies and Their Relevance to the Systematic Review

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Enterprise Social Platforms (ESPs) have been successfully implemented across various industries, demonstrating significant improvements in collaboration, operational efficiency, and innovation. These real-world case studies provide tangible examples of how ESPs have transformed businesses, aligning closely with the findings from this systematic review. The case studies show that ESPs not only drive productivity gains but also enhance decision-making, speed up product development, and streamline cross-departmental communication. Table 16 presents examples of ESP implementations in six industries—Manufacturing, Automotive, Textiles, Electronics, Food & Beverage, and Pharmaceuticals—offering a closer look at the implementation process, outcomes, and references for each case. This analysis underscores the practical impact of ESPs and their relevance to SMEs seeking to navigate digital transformation.

Table 16. Real Case Studies from Various Industries and Their Outcomes.

Industry	Case Study	Implementation	Outcome	Reference
Manufacturing	VF Corporation's Digital Transformation	Integrated ESP to improve collaboration and streamline supply chain processes	Achieved a 15% increase in productivity and enhanced collaboration across departments	Boston Consulting Group, 2023 [Link]
Automotive	Volkswagen's ESP Adoption	Deployed ESP for internal communication and data-sharing among engineering teams	Reduced project lead times by 20%, improved coordination, and sped up decision-making	Celonis, 2022 [Link]
Textiles	Levi Strauss's Collaborative Platform	Introduced ESP for team collaboration and product lifecycle management	Increased product development efficiency by 25%, reducing time to market	Boston Consulting Group, 2023 [Link]
Electronics	Philips' ESP Implementation	Implemented an enterprise platform for better knowledge sharing and global team sync	Improved innovation cycle by 30%, driving new product development and time savings	Celonis, 2023 [Link]
Food & Beverage	PepsiCo's Digital Collaboration Strategy	Adopted ESP for supply chain and marketing coordination	Optimized marketing campaigns and improved distribution strategies, leading to a 10% growth	Celonis, 2023 [Link]
Pharmaceuticals	Pfizer's ESP Integration	Integrated ESP for collaboration across research and	Accelerated drug development timelines by 15%, enhanced cross-	Boston Consulting Group, 2023

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	development departments	departmental communication	[Link]

This table demonstrates that ESPs are versatile tools that can be adapted to various industries to achieve specific business goals. For example, in the Manufacturing and Automotive sectors, ESPs were primarily used to improve supply chain management and reduce project lead times, resulting in enhanced productivity and faster decision-making. In Textiles and Electronics, ESPs facilitated product development and innovation by streamlining collaboration across global teams. For Food & Beverage and Pharmaceuticals, the focus was on optimizing marketing campaigns and accelerating research timelines, respectively.

9. Proposed Roadmap for SMEs and Policy Recommendations

This section presents a comprehensive roadmap designed to guide small and medium-sized enterprises (SMEs) in their journey of adopting Enterprise Social Platforms (ESPs). The roadmap focuses on aligning digital adoption with relevant policy frameworks that support industry-specific goals. By breaking down key steps for each industry, this section provides a tailored, step-by-step approach, ensuring that each SME can systematically implement ESPs in alignment with strategic drivers such as operational efficiency, compliance, and innovation. The roadmap aims to help SMEs overcome challenges related to digital adoption, including the cost of integration, technological infrastructure, and regulatory compliance. It also highlights the policy frameworks that can support these transitions, offering recommendations for how industries can leverage governmental and sector-specific guidelines. The roadmap includes a duration estimate for each step, ensuring realistic timelines, and advises industries on when to undertake these digital transformations as shown in Table 17.

Table 17. Proposed Roadmap for SMEs Businesses and Policy Recommendations Linked to Policy Frameworks.

Industry	Roadmap Focus (Step Breakdown)	Policy Framework	Strategic Link	Strategic Drivers	Expected Outcome	Ties to Proposed Study	Duration Estimate	When to Undertake
Manufacturing	1. Assess digital readiness; 2. Pilot platform integration; 3. Full-scale deployment and monitoring; 4. Staff training	Industry 4.0 Standards, IoT Adoption Policies	Enhances operational efficiency through real-time production insights	Digital Transformation, Automation	Increased productivity and streamlined production processes	Aligns with study focus on ESPs improving operational efficiency in resource-constrained	12-18 months	Must begin within next 12 months to stay competitive

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Automotive	1. R&D collaborative platform identification; 2. Integrate ESP tools in supply chain; 3. Expand to design & testing	National Automotive Innovation Strategy	Accelerates innovation cycles and collaborative R&D processes	Research and Development (R&D), Innovation	Reduced time-to-market and increased collaboration across the supply chain	environments Demonstrates how ESPs can accelerate R&D collaboration in highly competitive industries like automotive manufacturing	24 months	To be initiated in Q1 of the fiscal year
Textiles	1. Identify supply chain bottlenecks; 2. Digital tool customization; 3. Implementation; 4. Ongoing monitoring and scalability	Supply Chain Digitalization Strategy	Improves global supply chain tracking and inventory management	Supply Chain Management, Real-Time Data	Reduced delays, enhanced logistics efficiency	Aligns with review on the role of ESPs in improving supply chain management in sectors with complex logistics	18-24 months	Must be ongoing due to global supply chain shifts
Electronics	1. Assess customization needs for product	Electronics Sector Growth Strategy	Supports customized product	Product Development, Customization	Optimized product lifecycle	Supports insights on ESP customization	18-24 months	Should commence in 2024 for

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	lifecycle; 2. Choose ESP with modular features; 3. Deploy incrementally in teams		development and lifecycle management		management and innovation processes	driving product innovation in dynamic industries like electronics		market readiness
Food & Beverage	1. Select real-time tracking solutions; 2. Pilot ESP tools for quality assurance; 3. Gradual integration across departments	Food Safety and Modernization Act	Ensures compliance with safety and quality standards through real-time data	Compliance, Food Safety	Enhanced product quality, consistent compliance with health regulations	Links to findings on how ESPs enhance quality management and regulatory compliance in sensitive industries	12-18 months	Critical to begin immediately due to evolving regulations
Pharmaceuticals	1. Align R&D activities with ESP; 2. Compliance integration tools; 3. Cross-department roll-out; 4. Long-term	Healthcare Innovation Policy, R&D Compliance Framework	Facilitates seamless compliance with strict regulations and improves R&D productivity	Regulatory Compliance, Research and Development	Accelerated R&D, improved compliance with healthcare regulations	Tied to study findings on the critical role of ESPs in supporting regulatory compliance in R&D-heavy sectors	24 months	Should be undertaken in alignment with regulatory cycles

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	monitoring

The proposed roadmap for SMEs in adopting Enterprise Social Platforms (ESPs) is structured around specific industry needs, guiding organizations through key steps such as assessing digital readiness, piloting ESP integration, and aligning with relevant policy frameworks. The roadmap provides tailored approaches for industries like Manufacturing, Automotive, Textiles, Electronics, Food & Beverage, and Pharmaceuticals, ensuring that each step is backed by strategic drivers like operational efficiency, regulatory compliance, and innovation. The roadmap also includes a duration estimate for each step, varying from 12 to 24 months, and provides guidance on when industries should undertake the outlined actions to maximize benefits. The table emphasizes the strategic links between digital transformation initiatives and policy frameworks such as Industry 4.0 standards and healthcare compliance, with expected outcomes like enhanced productivity, improved supply chain management, and regulatory alignment. This roadmap ensures that SMEs can systematically implement ESPs while addressing industry-specific challenges, thereby achieving long-term sustainability and competitiveness.

10. Discussion

The discussion section aims to answer the five research questions posed in this systematic review, offering critical insights based on the findings from the included studies and analyses

RQ1: What core features and functionalities of enterprise social platforms (ESPs) are most critical for scaling small and medium enterprises (SMEs) across different industries, and how do these features differ by sector?

From the review, it is evident that collaboration tools, real-time communication, and knowledge management functionalities are the most crucial features for scaling SMEs across different sectors. In sectors such as manufacturing and automotive, real-time communication and integration of automation tools stand out as key features that support scalability and operational efficiency. These industries require seamless coordination across multiple teams and departments, making collaboration tools and automated workflows vital for reducing delays and improving productivity. In contrast, industries like Food & Beverage and Pharmaceuticals prioritize data security and compliance features due to stringent regulatory environments. Customization and integration capabilities also emerge as essential, as they allow businesses to tailor ESPs to their unique operational needs, further enhancing scalability across sectors.

RQ2: In what ways do enterprise social platforms facilitate dynamic knowledge sharing and real-time decision-making, enabling SMEs to remain agile in industries with rapid technological and market changes?

Enterprise social platforms significantly enhance dynamic knowledge sharing by providing a unified digital workspace where employees can collaborate, share documents, and exchange ideas in real-time. This is especially important in industries such as Electronics and Textiles, where rapid technological advancements require businesses to be agile and responsive to market changes. The review indicates that real-time decision-making is facilitated through features like instant messaging, project management tools, and file-sharing systems that allow for immediate feedback and information exchange. For SMEs in these sectors, the ability to make quick, data-driven decisions based on real-time insights improves their ability to adapt to changing market demands and new technologies, thus maintaining their competitiveness.

RQ3: What are the major sector-specific barriers and technical challenges SMEs face in adopting and integrating enterprise social platforms, and how can these platforms be optimized to overcome scalability and operational limitations?

The review highlights several sector-specific barriers to ESP adoption. For instance, the high implementation costs and lack of technical expertise present significant challenges for SMEs in the Textile and Manufacturing sectors. Moreover, in highly regulated industries like Pharmaceuticals and Food & Beverage, concerns around data security and privacy compliance create additional

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hurdles for ESP adoption. To overcome these challenges, the findings suggest that adopting scalable, modular platforms that can be implemented in phases can help mitigate the financial burden. Furthermore, providing comprehensive employee training and support for digital literacy can address the technical expertise gap. ESP providers must also prioritize security and compliance features to reassure SMEs in regulated industries, ensuring that the platforms meet industry-specific needs and regulations.

RQ4: How effective are leading enterprise social platforms in ensuring data security, privacy compliance, and scalability, particularly in sectors with stringent regulatory requirements?

Data security and privacy compliance are critical concerns, especially for industries such as Pharmaceuticals and Food & Beverage, where regulatory requirements like the General Data Protection Regulation (GDPR) and FDA standards must be met. The review indicates that leading ESPs, such as Microsoft SharePoint and Slack, offer robust security features, including encryption, multi-factor authentication, and compliance with industry standards, ensuring that SMEs can safeguard sensitive information. However, scalability remains a challenge, particularly for smaller enterprises that may not have the resources to invest in high-end solutions. The review suggests that business leaders should carefully evaluate ESPs for their scalability, ensuring that the platforms can grow alongside the business while maintaining compliance with evolving regulations.

RQ5: What are the measurable economic returns on investment (ROI) for SMEs adopting enterprise social platforms, and how do emerging trends and technologies in ESP development impact their long-term business value?

The review provides evidence that adopting ESPs leads to measurable economic returns, including a 20% increase in communication efficiency and a 15% reduction in operational costs over time. Sectors like Electronics and Automotive, which have embraced automation and AI integration within their ESPs, see quicker returns on investment due to improved productivity and reduced operational bottlenecks. Emerging technologies such as AI, machine learning, and advanced data analytics integrated into ESPs offer long-term business value by enabling predictive maintenance, real-time data analysis, and enhanced customer engagement. These advancements further enhance the strategic value of ESPs, enabling SMEs to not only achieve immediate operational efficiencies but also drive innovation and long-term growth. For industries with a strong reliance on real-time data, such as Manufacturing and Automotive, these technologies provide a critical competitive advantage.

11. Conclusions

This systematic review provides substantial evidence that enterprise social platforms (ESPs) are pivotal in enhancing the operational agility, communication, collaboration, and knowledge-sharing capabilities of small and medium enterprises (SMEs) across various sectors. Key findings from the included studies indicate that ESPs contribute to a measurable increase in efficiency, with notable improvements in communication (by 20%) and interdepartmental collaboration (by 25%). Although SMEs face challenges such as high implementation costs, lack of technical expertise, and concerns about data security, the long-term benefits of adopting ESPs—such as a reduction in operational costs (15%) and enhanced scalability through AI and automation—far outweigh these initial barriers. Emerging technologies integrated within ESPs, such as AI, automation, and advanced data analytics, have the potential to revolutionize how SMEs operate, particularly in sectors like Manufacturing, Automotive, and Electronics, where real-time data and predictive maintenance are critical. However, for sectors like Pharmaceuticals and Food & Beverage, ensuring compliance with stringent regulatory frameworks remains a critical concern, requiring ESP providers to prioritize security and compliance features. At large, the adoption of ESPs by SMEs can lead to significant improvements in operational performance, strategic growth, and long-term competitiveness. Policymakers should support this transition by offering financial incentives and developing frameworks to reduce the digital divide. Business leaders, on the other hand, must focus on selecting scalable, secure, and customizable platforms that align with their specific sectoral needs to ensure sustainable growth in the evolving digital economy

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