MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

NATIONAL HIGHER SCHOOL OF MANAGEMENT

ENSM – KOLEA

Master's dissertation

Masters in Strategic Management and Information Systems

Assessing the impact of ERP implementation: Dual-case study of vandor and client organizations

CASE: B-Link Solutions & Alliance Assurances

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Year 2024/2025

Abstract:

The implementation of Enterprise Resource Planning (ERP) systems has become a critical strategy for organizations seeking to enhance operational efficiency and improve decision-making. Their adoption has been in the rise since their early primitive forms as MRP(II) systems and grabbing the attention of early times organizations before the market reached its current competitive surge. The primary aim of this study is to assess the effects of ERP implementation on the organization's performance and to identify the potential unlocked by this project, as well as the role of organizational fit in achieving successful outcomes.

A comprehensive analysis was conducted using qualitative data collected from various actors and some documents involved in the ERP implementation process. Open ended interviews, discussions, hands on participation and performance metrics were utilized to evaluate the system's impact on operational efficiency, employee engagement, and strategic alignment. The findings indicate that the ERP system significantly streamlined processes, improved data accuracy, and enhanced real-time reporting capabilities. The integration of functions led to increased productivity and job satisfaction among employees. Furthermore, the alignment of the ERP system with the organization's strategic goals facilitated a stronger focus on customer-centric initiatives, driving competitive advantage.

The successful implementation of the ERP system has transformed the organization's technical capabilities and reinforced its strategic direction. High rates of organizational fit were achieved through stakeholder involvement, minimizing resistance to change and maximizing engagement. As a result, the organization is well-positioned to thrive in a competitive environment, leveraging its enhanced capabilities for sustained growth and success. This high level of success can be attributed to the high levels of organizational fit, competent expertise between both the vendor and the client, as well as well studied initiatives to reinforce and support the agile, adaptive culture in this ever-changing market.

Keywords: ERP, Information system, Strategic alignment, Organizational fit, Project Management

ملخص:

لقد أصبحت عملية تثبيت أنظمة تخطيط موارد المؤسسات الإستراتيجية حاسمة للمنظمات التي تسعى لتعزيز الكفاءة التشغيلية و تحسين اتخاذ القرارات. لقد زادت نسبة اعتمادها منذ أشكالها الاولية كأنظمة تخطيط متطلبات المواد و جذبت

انتباه المنظمات في الفترات السابقة قبل أن يصل السوق إلى ذروته التنافسية الحالية.. الهدف الرئيسي من هذه الدراسة هو تقييم تأثير تنفيذ نظام تخطيط موارد المؤسسات على أداء المنظمة وتحديد الإمكانيات التي تم فتحها من خلال هذا المشروع، بالإضافة إلى دور التوافق التنظيمي في تحقيق النتائج الناجحة.

تم إجراء تحليل شامل باستخدام بيانات نوعية تم جمعها من مختلف الأطراف وبعض الوثائق المتعلقة بعملية تثبيت نظام تخطيط موارد المؤسسات. تم استخدام المقابلات المفتوحة، المناقشات، المشاركة العملية، و مقاييس الأداء لتقييم تأثير النظام على الكفاءة التشغيلية، مشاركة الموظفين، والتوافق الاستراتيجي. تشير النتائج إلى أن نظام تخطيط موارد المؤسسات قد قام بتبسيط العمليات بشكل كبير، تحسين دقة البيانات، و عزز قدرات التقارير في الوقت الحقيقي. أدى دمج الوظائف إلى زيادة الإنتاجية ورضا الموظفين. علاوة على ذلك، فإن توافق نظام تخطيط موارد المؤسسات مع الأهداف الاستراتيجية للمنظمة قد ساعد في تعزيز التركيز على المبادرات الموجهة نحو العملاء، مما أدى إلى تحقيق ميزة تنافسية.

لقد حولت عملية تثبيت نظام تخطيط موارد المؤسسات الناجحة القدرات التقنية للمنظمة وعززت اتجاهها الاستراتيجي. تم تحقيق مستويات عالية من التوافق التنظيمي من خلال مشاركة أصحاب المصلحة، مما قلل من مقاومة التغيير وزاد من المشاركة. ونتيجة لذلك، فإن المنظمة في وضع جيد لتزدهر في بيئة تنافسية، مستفيدة من قدراتها المعززة لتحقيق نمو مستدام ونجاح. يمكن أن يُعزى هذا المستوى العالي من النجاح إلى مستويات التوافق التنظيمي العالية، والخبرة الكفؤة بين كل من البائع والعميل، بالإضافة إلى المبادرات المدروسة جيددا لتعزيز ودعم الثقافة المرنة والمتكيفة في هذا السوق المتغير باستمرار

الكلمات المفتاحية: تخطيط موارد المؤسسات، نظام المعلومات، التوافق الاستراتيجي، التوافق التنظيمي، إدارة المشاريع.

Résumer:

La mise en œuvre des systèmes de planification des ressources d'entreprise (ERP) est devenue une stratégie essentielle pour les organisations cherchant à améliorer l'efficacité opérationnelle et à optimiser la prise de décision. Leur adoption a augmenté depuis leurs formes primitives en tant que systèmes de planification des besoins en matériaux (MRP II), attirant l'attention des organisations à l'époque avant que le marché n'atteigne son actuelle concurrence accrue. L'objectif principal de cette étude est d'évaluer les effets de la mise en œuvre de l'ERP sur la performance de l'organisation et d'identifier le potentiel débloqué par ce projet, ainsi que le rôle de l'adéquation organisationnelle dans l'atteinte de résultats réussis.

Une analyse complète a été réalisée en utilisant des données qualitatives recueillies auprès de divers acteurs et de certains documents impliqués dans le processus de mise en œuvre de l'ERP. Des entretiens ouverts, des discussions, une participation pratique et des indicateurs de performance ont été utilisés pour évaluer l'impact du système sur l'efficacité opérationnelle, l'engagement des employés et l'alignement stratégique. Les résultats indiquent que le système

ERP a considérablement rationalisé les processus, amélioré la précision des données et renforcé les capacités de reporting en temps réel. L'intégration des fonctions a conduit à une augmentation de la productivité et de la satisfaction des employés. De plus, l'alignement du système ERP avec les objectifs stratégiques de l'organisation a facilité un accent plus fort sur les initiatives centrées sur le client, générant un avantage concurrentiel.

La mise en œuvre réussie du système ERP a transformé les capacités techniques de l'organisation et renforcé son orientation stratégique. Des niveaux élevés d'adéquation organisationnelle ont été atteints grâce à l'implication des parties prenantes, minimisant la résistance au changement et maximisant l'engagement. En conséquence, l'organisation est bien positionnée pour prospérer dans un environnement concurrentiel, tirant parti de ses capacités renforcées pour une croissance durable et un succès. Ce niveau élevé de réussite peut être attribué aux niveaux élevés d'adéquation organisationnelle, à l'expertise compétente entre le fournisseur et le client, ainsi qu'à des initiatives bien étudiées pour renforcer et soutenir la culture agile et adaptative dans ce marché en constante évolution.

Mots-clés : Planification des ressources d'entreprise, Système d'information, Alignement stratégique, Adéquation organisationnelle, Gestion de projet

Acknowledgement:

I would like to start by expressing my deepest gratitude to BLINK-solutions team, whose collaboration and openness to share insights greatly enriched the practical dimension of my research.

Special thanks to my thesis supervisors Mrs Djamila TOUMI and Mrs Narimane SGHIRI, for their continuous guidance, encouragement, and valuable feedback throughout the course of this research. Their expertise and support were instrumental in helping me refine my ideas and complete this work.

I also wish to thank the National Superior School of Management for providing the academic environment and resources necessary to carry out this study.

I am also grateful to my colleagues, peers, and friends who provided insightful discussions, constructive criticism, and constant motivation during this journey.

Finally, I would like to acknowledge the unwavering support of my family, whose patience, encouragement, and belief in me made the completion of this thesis possible.

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List of abbreviations and acronyms:

AM	Access Management
API	Application Programming Interface
B2B	Business-to-Business
B2C	Business-to-Consumer
CRM	Customer Relationship Management
CSF	Critical Success Factor
CSS	Cascading Style Sheet
CSV	Comma-Separated Values
CTO	Configure-to-Order
DAM	Database Access Monitoring
DBMS	Database Management System
EDI	Electronic Data Interchange
ERP	Enterprise Resource Planning
ERP II	Extended ERP (integration with external partners)
ETO	Engineer-to-Order
FAST	Functional Analysis System Technique
HR	Human Resources
HRM	Human Resource Management
HTML	Hyper Text Markup Language
IS	Information System
IT	Information Technology
ITIL	Information Technology Infrastructure Library
JS	JavaScript
JVM	Java Virtual Machine
KMS	Knowledge Management System
KPI	Key Performance Indicator
LMS	Learning Management System
ML	Machine Learning
MRP	Material Requirements Planning
MRP-II	Manufacturing Resource Planning
OS	Operating System
PM	Project Management
RFP	Request for Proposal
RFQ	Request for Quotation
ROI	Return on Investment
SADT	Structured Analysis and Design Technique
SCM	Supply Chain Management
SDLC	Software Development Life Cycle
SLA	Service Level Agreement
SME	Small and Medium-sized Enterprise
SOA	Service-Oriented Architecture
SOP	Standard Operating Procedure
TCO	Total Cost of Ownership

UAT	User Acceptance Testing
UI	User Interface
UML	Unified Modeling Language
UX	User eXperience
WIP	Work In Progress
XML	Extensible Markup Language
YOE	Years Of Experience

Introduction:

1.Introduction:

In today's highly competitive and digitalized business environment, organizations are under constant pressure to optimize efficiency, streamline operations, and improve decision-making. To address these challenges, many companies adopt Enterprise Resource Planning (ERP) systems, which are integrated software platforms designed to unify and automate core business processes. By integrating data and processes into a single system, ERPs eliminate bottlenecks, enhance transparency, and enable real-time access to critical information across departments.

ERP systems play a central role in strategic alignment, ensuring that daily operations are consistent with long-term organizational goals. They achieve this by providing unified databases and standardized workflows, ERP systems help managers monitor performance, detect inefficiencies, and make data-driven decisions.

Moreover, ERP implementation has profound implications for organizational change and performance. While successful projects can deliver substantial benefits such as cost reduction, productivity gains, and improved customer service, misaligned implementations often lead to disruptions, bottlenecks, financial losses, and resistance among employees. This duality highlights why ERP projects are both highly valuable and sensitive. The degree to which ERP solutions align with existing processes, cultures, and strategies often determines whether a company experiences improvement or regression after adoption.

Given their growing significance in the past few decades, ERP systems are no longer viewed merely as technological tools, but as strategic enablers of organizational integration and innovation. They represent a bridge between information technology and business strategy, making their study vital for understanding how modern enterprises adapt, compete, and evolve in the modern shifting and highly competitive ecosystem.

2.research problematic:

Despite the promises of ERP systems to improve efficiency and integration, many organizations experience performance gaps and regressions due to mismatches between ERP functionalities and existing business processes. How does organizational fit shape the impact of ERP implementation on company performance?

To answer this question, this research will break down the scope into 3 distinct variables:
- ERP related factors: that covers implementation, customization, and flexibility

- Company level impacts: that are reflected through operational and strategic performance, as well as user satisfaction
- and intermediary factors: defined as level of organizational fit

Chapter 01 Review Of Literature And Conceptual Framework :

1.Review of literature:

In this section we will cover a collection of published scientific articles spanning the past 25 years, most notably to follow chronologically with the evolution of each thematic scope within the ERPs and integrated systems field.

This review will be broken into 4 main sections, in order to aid in orienting this work.

1.1.Foundational ERP Impact & Performance Studies:

Enterprise Resource Planning (ERP) systems have evolved into critical infrastructure for organizations seeking to integrate business processes, enhance performance, and maintain competitiveness in the digital era. This review traces the scholarly exploration of ERP systems, focusing on their historical development, organizational impact, alignment with business strategy, the role of organizational fit, customization challenges, and the relationship between ERP implementation and organizational performance. The review is organized chronologically to illustrate the progression of research and understanding in this field.

1.1.1.The Genesis and evolution of ERP systems:

The earliest scholarly work in this collection, "Enterprise Resources Planning: Introduction," (Klaus et al., 2000) provides a foundational overview of ERP systems, tracing their origins from basic inventory management applications in the 1960s to the sophisticated, integrated platforms of the present day. The paper highlights how ERP systems emerged from Materials Requirements Planning (MRP) and Manufacturing Resource Planning (MRP-II), eventually encompassing a wide array of business functions beyond manufacturing, such as finance, human resources, and supply chain management. The author emphasizes that the primary objective of ERP is to facilitate seamless information flow across organizational boundaries, thereby improving decision-making and operational efficiency. The historical context set by this work underscores the increasing complexity and strategic importance of ERP systems as organizations transitioned into the era of digital transformation.

This paper presented many foundational key points as it establishes the conceptual ground many empirical studies test (what ERP *is* and the hypothesized channels to performance):

- Presents ERP as an integrated application suite intended to unify data and processes across functions; traces ERP evolution from MRPII and legacy integration projects.
- Highlights expected benefits often cited in the literature: internal integration, reduced

duplication, improved transaction processing, and improved decision support.
- Emphasizes that ERP adoption often requires process change, possible customization, and ongoing vendor dependence.

1.1.2.Early empirical evidence: ERP and corporate performance:

Building on the foundational understanding of ERP, the study "The Impact of Enterprise Systems on Corporate Performance: A Study of ERP, SCM, and CRM System Implementations" (Winbo, 2012) investigates the tangible effects of enterprise systems on organizational outcomes. This research adopts a quantitative approach to assess how the implementation of ERP, Supply Chain Management (SCM), and Customer Relationship Management (CRM) systems influences corporate performance metrics. The findings suggest that ERP systems, when effectively integrated, can lead to improvements in operational efficiency, information quality, and overall firm performance. However, the study also notes that the magnitude of these benefits is contingent upon factors such as the alignment of the system with organizational processes and the duration of system use. Notably, the research highlights that the anticipated performance gains are not always immediate, and the realization of benefits may require sustained organizational commitment and adaptation.

Among the key findings of this paper; is the found evidence that ERP implementations can improve profitability measures (some improvements in return on assets / return on sales). Such Improvements are more apparent for early adopters and are dependent on the context. the study stresses contingency and timing. Despite its apparent Limitations; considering that it is an event-study and announcement-based designs can capture market expectations, not always realized long-term operational gains; external validity across firm sizes and sectors is limited.

1.1.3.Strategic alignment in ERP implementation:

As ERP systems became more prevalent, scholars began to examine the importance of aligning ERP implementation with organizational strategy. The paper "Strategic Alignment of ERP Implementation Stages: An Empirical Investigation" (Velcu, 2010) explores how the synchronization of ERP projects with business objectives can enhance the value derived from these systems. The authors argue that strategic alignment is a critical success factor, influencing both the efficiency of internal processes and the quality of outcomes. Through empirical analysis, the study demonstrates that organizations that prioritize alignment between ERP implementation stages and strategic goals are more likely to

achieve improvements in productivity, cost management, and service quality. This work marks a shift in the literature from viewing ERP as a purely technical solution to recognizing its role as a strategic enabler.

Through this paper, It was found that strategic alignment during each ERP stage (selection, implementation, post-implementation) is associated with shorter, more cost-efficient projects and with clearer operational benefits (faster reaction to business events). On top of the existing Interdependency across all stages; success in one stage influences subsequent stages.

1.1.4.Organizational fit and ERP success:

The theme of alignment is further developed in "A Study of Successful ERP – From the Organization Fit Perspective." (Chen et al., 2009)This paper delves into the concept of organizational fit, emphasizing that the success of ERP implementation is heavily dependent on the degree to which the system aligns with the organization's existing processes, culture, and structure. The research identifies organizational fit as a multidimensional construct, encompassing both technical compatibility and cultural congruence. The study finds that when ERP systems are tailored to fit the unique characteristics of an organization, the likelihood of successful adoption and utilization increases significantly. Conversely, misalignment can lead to resistance, underutilization, and suboptimal outcomes. This work underscores the necessity of considering organizational context in ERP projects and highlights the interplay between system design and organizational dynamics.

It was found through this paper that organizational fit; how well an ERP matches an organization's processes, data needs and user capabilities, strongly predicts implementation success. The authors test for moderating effects (process adaptation, ERP adaptation, resistance) and find organizational fit is a core predictor in implementation success, implying that technical deployment alone is insufficient. Supporting the evidence that operationalizing the fit notion and that context and organizational alignment are central mediators between ERP adoption and realized outcomes.

1.1.5.Addressing organizational misfits: the role of customization:

Despite the emphasis on fit, many organizations encounter misalignments between standard ERP functionalities and their specific business requirements. The paper "ERP and Organizational Misfits: An ERP Customization Journey" (Haddara, 2016) investigates how

organizations address these misfits through customization. The authors document the challenges and trade-offs associated with modifying ERP systems, noting that while customization can bridge gaps and enhance alignment, it also introduces complexity, increases costs, and may complicate future upgrades. The study advocates for a balanced approach, recommending that organizations carefully assess the necessity and scope of customization to avoid excessive divergence from standard ERP models. The findings highlight the importance of organizational change management and user involvement in navigating the customization process.

Different kinds of misfit (surface vs deep structural misfits) require different tailoring strategies some misfits are better handled by organizational adaptation, others by system modification, with the existence of Internal institutional factors (culture, resistance) shape tailoring decisions and acceptance.

1.1.6.ERP implementation and organizational performance: case study insights:

The relationship between ERP implementation and organizational performance is further explored in "ERP Implementation and Organizational Performance: A Romanian Case Study of Best Practices." (Dumitru et al., 2013) This empirical study examines the experiences of Romanian organizations, identifying critical success factors that contribute to positive performance outcomes. The research highlights the significance of top management support, effective project management, comprehensive training, and clear communication in facilitating successful ERP adoption. The case study approach provides nuanced insights into the contextual factors that influence ERP outcomes, illustrating that best practices must be adapted to the specific needs and constraints of each organization. The study also reinforces the notion that ERP implementation is a complex, multifaceted process that requires careful planning and ongoing evaluation. This paper Illustrates the co-evolution of organization and ERP system: over time the firm and system adapted to each other, producing a fit that led to improved operational performance. As well as Highlighting cultural and managerial hurdles specific to emerging economies (managerial culture, lack of formal accounting practices) that mediate ERP outcomes.

1.1.7.Change management in large-scale ERP projects:

The complexities of ERP implementation are vividly illustrated in "Navy ERP: An Analysis of Change Management." (Bonner, 2013). This case study examines the U.S. Navy's experience with ERP adoption, focusing on the human and organizational challenges encountered during the process. The analysis reveals that resistance to change,

inadequate communication, and insufficient stakeholder engagement can significantly impede the success of ERP projects. The study emphasizes the critical role of change management strategies, including leadership involvement, user training, and continuous feedback mechanisms, in overcoming barriers and fostering acceptance. The lessons drawn from this large-scale public sector implementation underscore the universal relevance of change management in ERP initiatives, regardless of organizational size or sector.

At DoD scale, ERP programs face massive complexity, cost overruns, and schedule slippage; change management (communication, training, role mapping, sustainment) is repeatedly identified as the critical success factor. Public-sector constraints (procurement rules, multiple stakeholders, legacy systems) make ERP benefits harder to realize than in single-firm commercial settings.

1.1.8.Contemporary perspectives: ERP in the era of industry 4.0:

The most recent contribution, “History, Features, Challenges, and Critical Success Factors of Enterprise Resource Planning (ERP) in the Era of Industry 4.0,” (Al-Amin et al., 2023)situates ERP systems within the context of digital transformation and emerging technologies. The paper reviews the evolution of ERP, highlighting the integration of cloud computing, artificial intelligence, and Internet of Things (IoT) capabilities. The authors identify new challenges, such as data security, system interoperability, and the need for agile adaptation to rapidly changing business environments. The study also revisits critical success factors, emphasizing the ongoing importance of strategic alignment, organizational fit, and effective change management in the context of Industry 4.0. This work signals a shift towards viewing ERP as a dynamic, evolving platform that must continuously adapt to technological and organizational innovations.

Industry 4.0 adds new dimensions to ERP performance: integration with IoT/data streams, real-time analytics, and advanced production orchestration. Critical Success Factors (CSFs) remain relevant (top management support, training, data quality), but new CSFs emerge (data architecture, APIs, analytics capabilities, cybersecurity). The paper highlights the need for updated performance metrics that capture agility, time-to-insight and integrated decision support (not just classic financial KPIs).

1.1.9.cross paper analysis:

- performance is conditional, not automatic: Across the set, the consistent message is that ERP adoption does not by itself guarantee improved firm performance. Empirical studies (Hendricks et al., 2007; Velcu, 2010)show mixed results and emphasize contingency; timing, alignment, organizational fit and implementation quality matter. Case studies (Bonner, 2013; Dumitru et al., 2013) illustrate the processual nature of benefits realization.
- Organizational alignment & change management are central mediators: Multiple papers (Chen et al., 2009; Haddara, 2016) converge on the idea that success depends heavily on alignment between ERP and organizational processes, plus active change management (training, communication, role mapping). These organizational mechanisms mediate whether technical improvements translate into operational or financial gains.
- stomization vs. standardization, a recurring trade-off**:** The case literature shows that tailoring reduces misfit but raises upgrade/maintenance costs. (Haddara, 2016)provide a typology showing which misfits typically trigger which tailoring responses; Dumitru's (Dumitru et al., 2013)longitudinal case shows how mutual adaptation can become a best practice when governance is appropriate.
- Sector & scale matter: Large public programs (Navy) and emerging-market SMEs face different constraints and success factors compared with large private firms studied in event-studies. Thus sector-specific evidence is crucial to understand realized performance differences.
- Measurement challenges; perceptual vs objective KPIs: Many studies use perceptual survey measures (user satisfaction, perceived benefits) while some use objective financial metrics (ROA, stock returns). This mixture explains why findings are sometimes inconsistent and points to a need for multi-method, longitudinal designs.

Common weaknesses / opportunities:

- Causal identification: Few studies provide causal estimates of ERP's effect on productivity or profitability while controlling for selection and time trends. (Opportunity: difference-in-differences or panel methods.)
- Operational metrics: Many papers rely on perceptual measures; there's a gap for longitudinal objective KPIs (cycle time, lead time, inventory turns). (Opportunity: combine ERP change logs with accounting data.)
- Cross-sector comparative work: Sector and scale differences are under-tested in large quantitative samples. (Opportunity: stratified sampling across sectors.)

- Customization measurement: We lack standard, quantitative measures of customization or "misfit" beyond case typologies. (Opportunity: create and validate a customization index and test its correlation with upgrade cost and performance.)

Conclusion:

The chronological progression of research on ERP systems reveals a deepening understanding of their multifaceted impact on organizational performance. Early studies established the foundational benefits of ERP in integrating business processes and enhancing efficiency while Survey and case research consistently shows that organizational fit and change management determine whether ERP deployments deliver sustained operational benefits (Bonner, 2013; Chen et al., 2009; Velcu, 2010). Event-study and panel research finds mixed evidence that ERP investments improve profitability and market valuations; effects appear contingent on timing and firm context (Hendricks et al., 2007). Subsequent research highlighted the importance of strategic alignment, organizational fit, and customization in achieving successful outcomes and studies of customization show a trade-off: tailoring reduces immediate misfit but raises long-term upgrade and maintenance costs; misfit type guides the choice between organizational adaptation and system modification (Haddara, 2016). Case studies and empirical investigations have underscored the critical role of change management and contextual adaptation. In the current era, ERP systems are increasingly viewed as enablers of digital transformation, requiring ongoing evolution to meet the demands of Industry 4.0. Collectively, these studies provide a comprehensive foundation for understanding the complex interplay between ERP systems, organizational dynamics, and performance outcomes.

Research into ERP impacts shows that the technology's mere presence does not guarantee improved organizational performance. Quantitative event and panel studies find conditional and sometimes mixed effects on profitability and stock returns, with benefits more evident for particular contexts and early adopters (Hendricks et al., 2007). Survey and case-based research complements this by showing that organizational alignment; fit between ERP functionality and business processes; plus effective change management, are decisive mediators of realized benefits (Bonner, 2013; Chen et al., 2009; Velcu, 2010). Finally, the literature highlights a customization trade-off: tailoring can mitigate misfit but tends to raise long-term maintenance and upgrade costs, suggesting that governance and

upgrade planning are vital for sustaining performance gains (Dumitru et al., 2013; Haddara, 2016).

1.2.Critical success factors (CSFs) & implementation strategies:

Enterprise Resource Planning (ERP) systems are complex, organization-wide platforms that promise integration, efficiency, and strategic advantage. However, the high rate of ERP project failures has led researchers and practitioners to focus on identifying the critical success factors (CSFs) and effective implementation strategies that can increase the likelihood of success. This review traces the scholarly exploration of CSFs and implementation strategies, following a chronological order to highlight the evolution of thought and practice in this domain.

1.2.1.Early Emphasis on strategic alignment and key success factors:

The foundational work "Aligning Key Success Factors to ERP Implementation Strategy: Learning from a Case Study" (Zouaghi & Laghouag, 2012) marks an early and influential contribution to the field. This study investigates the alignment between key success factors and ERP implementation strategies, using a case study approach to draw practical insights. The authors argue that the success of ERP projects is not solely dependent on technical excellence but is deeply influenced by the strategic alignment of the project with organizational goals. The research identifies several CSFs, including top management support, clear project objectives, effective communication, and user involvement. The study demonstrates that these factors must be integrated into the overall implementation strategy to ensure that the ERP system delivers value and supports business transformation. The case study approach provides concrete examples of how misalignment between strategy and CSFs can lead to project delays, cost overruns, or even failure, emphasizing the need for a holistic and context-sensitive approach to ERP implementation.

This influential study maps which CSFs matter at which stages of an ERP project. Instead of a single flat list of success factors, the authors show the value of staging (identifying which priorities. e.g., top-management support, user training, data conversion) are critical during selection, implementation and post-implementation phases. It was found that CSFs vary by stage: early stages require clear business case and sponsorship; implementation requires project management and vendor coordination; post-implementation depends on training, continuous improvement, and performance measurement. The strategic mapping to these stages helps managers allocate scarce resources to the right activities at the right time.

1.2.2.Contextualizing CSFs: the case of jordan:

Building on the early focus on alignment, the paper "Critical Success Factors for ERP Implementation: The Case of Jordan" (Abu-Shanab et al., 2013) provides a region-specific perspective by examining ERP projects in Jordanian organizations. This study highlights that while many CSFs are universal, their relative importance and manifestation can vary significantly depending on the local context. The research identifies a set of CSFs that are particularly salient in the Jordanian environment, such as organizational culture, change management, and the availability of skilled personnel. The authors stress the importance of adapting implementation strategies to the specific challenges and opportunities present in the local context. For example, resistance to change and lack of user training are found to be more pronounced in Jordan, necessitating targeted interventions in these areas. The study underscores the need for a nuanced understanding of CSFs that goes beyond generic lists and considers the unique characteristics of each implementation environment.

The primary findings of this paper revolve around the core CSFs' (top management support, user involvement, vendor competence, clear business processes) emergence as significant predictors of implementation success, with regional/organizational features (e.g., local vendor ecosystem, regulatory expectations, managerial capabilities) shaping the relative importance of CSFs in a context-dependent matter.

1.2.3.Deepening the analysis: systematic literature review of post-implementation CSFs:

As the field matured, researchers began to systematically review the literature to identify patterns and gaps in the understanding of CSFs. The "Systematic Literature Review of Critical Success Factors on Enterprise Resource Planning Post Implementation" (Butarbutar et al., 2023)represents a recent and comprehensive effort to synthesize findings from a wide range of studies. This review focuses specifically on the post-implementation phase, an area that has historically received less attention compared to the initial rollout. The authors identify a set of CSFs that are crucial for sustaining ERP benefits after the system goes live, including continuous user training, ongoing top management support, system flexibility, and effective change management. The review highlights that the challenges do not end with system deployment; rather, organizations must remain vigilant and proactive in addressing evolving needs, user feedback, and technological advancements. The findings suggest that successful post-implementation strategies require

a long-term commitment to organizational learning and adaptation, as well as mechanisms for monitoring and enhancing system performance over time.

Among the found strong, recurring post-implementation CSFs: continuous training, benefits realization management, data governance, performance measurement, vendor relationship management, and system alignment with evolving business processes. The SLR often highlights research gaps: insufficient longitudinal studies, lack of objective KPI linkage, and uneven attention to socio-technical factors (culture, politics).

1.2.4.Revisiting strategic alignment: lessons from case studies:

A subsequent iteration of the earlier work, "Aligning Key Success Factors to ERP Implementation Strategy: Learning from a Case Study" (Zouaghi & Laghouag, 2016), revisits the theme of strategic alignment with updated case evidence and refined analysis. This study reinforces the centrality of aligning CSFs with the broader organizational strategy, arguing that misalignment can undermine even the most technically sound projects. The authors provide additional insights into the dynamic nature of CSFs, noting that their relative importance may shift over the course of the project lifecycle. For instance, while top management support is critical during the initiation phase, user training and change management become more prominent during and after system deployment. The case study approach allows for a granular examination of how organizations can adjust their strategies in response to emerging challenges and opportunities, highlighting the need for flexibility and responsiveness in ERP implementation.

1.2.5.Synthesizing best practices: essential strategic factors for success:

The most recent contribution, "Essential Strategic Factors for Ensuring a Successful ERP Implementation" (Sagar, 2025), synthesizes lessons learned from previous research and practice to propose a set of essential strategic factors for ERP success. The authors argue that while the list of potential CSFs is extensive, certain factors consistently emerge as decisive across contexts and industries. These include strong leadership, clear vision and objectives, effective project management, stakeholder engagement, and a culture of continuous improvement. The paper emphasizes the importance of integrating these factors into a coherent implementation strategy that is tailored to the organization's specific needs and circumstances. The authors also highlight the role of external consultants and vendors, noting that their expertise can be invaluable in navigating technical complexities and facilitating knowledge transfer. The study concludes that successful ERP implementation is

not a one-time event but an ongoing process that requires sustained attention to both technical and human dimensions.

This paper reiterates combined importance of: executive sponsorship; robust project governance; clear scope and process mapping; vendor partnership & SLA design; phased rollouts with quick wins; and sustained benefits tracking. While emphasizing strategic alignment from the outset and continuous post-implementation governance.

1.2.6.Cross-paper synthesis:

- CSFs are stage-dependent. Somers & Nelson's stage mapping is central: one size doesn't fit all, what matters pre-go-live differs from post-go-live concerns. The SLR confirms post-implementation has its own CSF list (training, benefits management, governance).
- Universals vs context-specific CSFs**.** Across the set, some CSFs repeat (top management support, user involvement, vendor competence). Regional research (Jordan) shows their relative importance shifts by context (culture, market maturity).
- From checklist to strategic process. The field is moving from flat checklists to dynamic frameworks that combine timing (stage), context (sector/region), and mechanism (how CSFs produce outcomes). The practical framework paper embodies this managerial translation.
- Measurement and evidence gaps; Recurrent limitation: reliance on perceptual measures and cross-sectional designs. The SLR calls for longitudinal, KPI-based research linking CSF presence to measurable operational/financial outcomes.
- Operationalization gap; "Top management support" appears in every list but is measured inconsistently. Create clear, multi-item scales (frequency of sponsor reviews; budget allocated; decision lead time) and validate them.
- Research indicates that successful ERP programs rely on a constellation of success factors whose relative importance changes across project stages; early phases depend on sponsorship and scope clarity, whereas post-implementation success hinges on training and benefits realization. (Butarbutar et al., 2023)
- Country-level studies show that while core success factors repeat across contexts, local institutional and market conditions shape which factors matter most and how they should be enacted. (Abu-Shanab et al., 2013)
- Recent syntheses highlight persistent research needs: validated operational metrics,

longitudinal evidence linking CSFs to concrete KPIs, and studies that test stage-sensitive investment strategies. (Butarbutar et al., 2023)

Conclusion:

The chronological progression of research on CSFs and implementation strategies in ERP projects reveals a deepening understanding of the multifaceted nature of success in this domain. Early studies established the importance of strategic alignment and the identification of key success factors, while subsequent research emphasized the need for contextual adaptation and long-term post-implementation support. Recent contributions have synthesized best practices and highlighted the ongoing nature of ERP success, underscoring the interplay between technical excellence, organizational strategy, and human factors. Collectively, these studies provide a robust foundation for both scholars and practitioners seeking to navigate the complexities of ERP implementation and maximize the value of these transformative systems.

1.3.Organizational fit, misfit & customization:

Enterprise Resource Planning (ERP) systems are designed to integrate and streamline business processes across organizations. However, the success of ERP implementation is not solely determined by technical capabilities; it is deeply influenced by the degree of fit between the system and the organization's unique processes, culture, and structure. This review traces the scholarly exploration of organizational fit, misfit, and customization in ERP projects, following a chronological order to highlight the evolution of thought and practice in this domain.

1.3.1.Organizational fit as a foundation for ERP success:

The concept of organizational fit is central to understanding ERP implementation outcomes. In "A Study of Successful ERP – From the Organization Fit Perspective," (Chen et al., 2009) the authors argue that the alignment between an ERP system and the organization's existing processes, structures, and culture is a decisive factor for project success. The study emphasizes that ERP systems are not "one size fits all"; rather, their effectiveness depends on how well they are tailored to the specific needs and characteristics of the adopting organization. The research identifies several dimensions of fit, including process alignment, data compatibility, and user acceptance. The findings suggest that organizations that invest in achieving a high degree of fit; through careful planning, stakeholder involvement, and iterative adaptation, are more likely to realize the

intended benefits of ERP implementation. Conversely, a lack of fit can lead to resistance, underutilization, and project failure, highlighting the importance of organizational context in ERP projects.

This paper formalizes the idea that ERP success depends on how well the system aligns with an organization's processes, structures and users. The authors show that greater process-to-system congruence correlates with higher perceived implementation success, and that adaptation (either changing processes to fit the ERP or adapting the ERP) matters for outcomes.

1.3.2.Addressing misfits: the role of customization:

Despite the emphasis on fit, many organizations encounter misalignments, referred to as misfits, between standard ERP functionalities and their specific business requirements. The paper "ERP and Organizational Misfits: An ERP Customization Journey" (Haddara, 2016) delves into the practical challenges of addressing these misfits. The authors document the process of identifying gaps between the ERP system and organizational needs, categorizing misfits into goal, functional, data, and output misfits. The study explores various customization approaches, such as tailoring configurations, modifying code, and extending system capabilities through add-ons. While customization can bridge critical gaps and enhance alignment, the research cautions that it also introduces complexity, increases costs, and may complicate future system upgrades. The authors advocate for a balanced approach, recommending that organizations carefully assess the necessity and scope of customization to avoid excessive divergence from standard ERP models. The findings underscore the importance of organizational change management and user involvement in navigating the customization process, as well as the need for ongoing evaluation to ensure that customizations continue to support evolving business needs.

A structured taxonomy of misfit types (for example: strategic, process, system, institutional misfits) and links each misfit category to practical tailoring strategies (organizational change vs. system customization), was introduced through the findings of this paper. As well as underlining that some misfits are best resolved by adapting organizational procedures, while others require system modification. And that those choices have downstream implications for upgradeability and maintenance.

1.3.3.ERP implementation and organizational performance: case study insights:

The relationship between organizational fit, customization, and performance is further explored in "ERP Implementation and Organizational Performance: A Romanian Case Study of Best Practices" (Dumitru et al., 2013). This empirical study examines the experiences of Romanian organizations, identifying critical success factors that contribute to positive performance outcomes. The research highlights the significance of top management support, effective project management, comprehensive training, and clear communication in facilitating successful ERP adoption. The case study approach provides nuanced insights into the contextual factors that influence ERP outcomes, illustrating that best practices must be adapted to the specific needs and constraints of each organization. The study also reinforces the notion that ERP implementation is a complex, multifaceted process that requires careful planning and ongoing evaluation. Importantly, the research demonstrates that achieving organizational fit, through both standardization and selective customization, can lead to improved operational efficiency, data quality, and decision-making capabilities.

Documents the co-evolution of organizational processes and ERP configuration over time. The case shows that mutual adaptation; the iterative changes in processes and selective system tailoring, is produced a progressively better fit and measurable operational improvements. The paper highlights the role of managerial commitment and training in sustaining benefits.

1.3.4.Disparity between desired and experienced effects: the campus ERP perspective:

The complexity of achieving organizational fit is further highlighted in "Exploring Factors Causing Disparity between Desired and Experienced Effects of Campus ERP Systems." (Al Dhafari & Li, 2014). This study investigates why the anticipated benefits of ERP systems are not always realized in practice, focusing on the higher education sector. The authors identify several factors contributing to the gap between desired and experienced outcomes, including misalignment between system design and institutional processes, insufficient user training, and resistance to change. The research underscores the importance of involving end-users in the design and implementation process to ensure that the system meets their needs and expectations. The findings suggest that even with significant investment in ERP systems, the lack of organizational fit can result in underutilization and dissatisfaction, emphasizing the need for continuous engagement and adaptation throughout the project lifecycle.

The reasons why institutions expect certain ERP benefits but then experience a gap (disparity) post-implementation has been identified through this Paper. They include poor process scoping, under-estimated customization needs, and insufficient user engagement. The study highlights that misfit often stems from immature business process definitions prior to implementation.

1.3.5.Change management and organizational fit in large-scale ERP projects:

The challenges of achieving organizational fit are vividly illustrated in "Navy ERP: An Analysis of Change Management." (Bonner, 2013). This case study examines the U.S. Navy's experience with ERP adoption, focusing on the human and organizational challenges encountered during the process. The analysis reveals that resistance to change, inadequate communication, and insufficient stakeholder engagement can significantly impede the success of ERP projects. The study emphasizes the critical role of change management strategies, including leadership involvement, user training, and continuous feedback mechanisms, in overcoming barriers and fostering acceptance. The lessons drawn from this large-scale public sector implementation underscore the universal relevance of organizational fit and change management in ERP initiatives, regardless of organizational size or sector.

This paper emphasizes that at very large scales, organizational fit issues are amplified by complex stakeholder networks, legacy systems, and strict procurement constraints. It argues that change management (communication, role clarification, and training) is the dominant factor in achieving fit and reducing misfit in public-sector ERP programs, despite the strict scope and sector this paper covered.

1.3.6.Critical success factors for cloud ERP: the evolving landscape:

The most recent contribution, "Critical Success Factors of Cloud ERP in the Enterprise Business," (Mandava, 2024) situates the discussion of organizational fit and customization within the context of cloud-based ERP solutions. The paper reviews the unique challenges and opportunities presented by cloud ERP, such as increased flexibility, scalability, and reduced infrastructure costs. However, the authors note that the shift to cloud ERP does not eliminate the need for organizational fit; rather, it introduces new considerations related to data security, system integration, and vendor management. The study identifies critical success factors for cloud ERP implementation, including strategic alignment, user involvement, and effective change management. The findings suggest that while cloud ERP offers significant advantages, organizations must still prioritize fit and customization

to ensure that the system supports their specific business processes and strategic objectives. This paper shows that cloud ERP changes the customization landscape, heavy core customization is less common, but integration and configuration become critical to achieve fit with sector-specific processes. Vendor-managed upgrades and multi-tenant concerns mean that organizational change and careful orchestration with vendor SLAs are required to maintain fit without over-customizing.

1.3.7.Cross-paper synthesis:

- Fit as a dynamic, not static, property: Several works (Chen et al., 2009; Dumitru et al., 2013; Haddara, 2016) emphasize that fit evolves: organizations and ERP systems co-adapt. Early expectations of fit often change as users learn and processes are reworked. Firms whose business processes, data structures, and user capabilities align closely with the ERP configuration report higher implementation success." (Chen et al., 2009)
- Customization is a double-edged sword: Customization reduces immediate misfit but raises future costs: upgrade difficulty, vendor dependence, and technical debt. Haddara & Hustada (Haddara, 2016) provide a taxonomy that helps decide when to customize and when to change the organization instead.
- Sector & scale shape fit strategies: Public-sector like Navy (Bonner, 2013) and higher-education contexts show different drivers (procurement, many stakeholders, regulatory constraints) compared with SMEs or commercial firms; meaning fit strategies must be context sensitive.
- Pre-implementation process maturity matters: Campus ERP and Romanian evidence highlight that ambiguous or immature processes make fit hard to achieve and push organizations toward unnecessary customization.
- Cloud changes the toolkit for fit: Mandava shows cloud ERP reduces some forms of deep customization but increases emphasis on integration, configuration, and vendor governance to preserve fit over time.
- Longitudinal causal tests of the trade-off: Longitudinal case evidence shows that fit is not achieved once and for all but is produced through iterative co-adaptation between organizational routines and system configuration (Dumitru et al., 2013) and show whether and when customization yields net positive performance once upgrade costs and maintenance are included.
- Decision rules for tailoring vs organizational change: Haddara & Hustada's taxonomy (Haddara, 2016)could be operationalized: Customization reduces immediate misfit but

increases future upgrade complexity and maintenance burden; therefore, tailoring decisions should be guided by a misfit taxonomy and long-term governance planning. (Haddara, 2016)

- In large multi-stakeholder public programs, change management; including role mapping, communication, and training; is the primary lever to reduce misfit and increase the odds of realizing intended benefits." (Bonner, 2013)
- Cloud ERP empirical validation: Cloud ERP reduces the need for deep core customization but raises the importance of integration quality, configuration governance, and vendor relationship management to sustain organizational fit (Mandava, 2024).

The literature on ERP fit and customization converges on three propositions. First, fit between ERP functionality and organizational processes is a key determinant of perceived success, and where fit is low organizations may either reconfigure processes or tailor the software. Second, tailoring decisions create a trade-off: customization can eliminate immediate misfits but often produces longer-term costs in maintenance and upgrades, suggesting the need for principled decision rules. Third, fit is contextually driven; sector, scale and procurement environment influence whether organization change or system modification is the preferable response. Together, these findings point to the need for validated measures of misfit and controlled longitudinal studies that can quantify the long-run performance consequences of different tailoring strategies (Bonner, 2013; Chen et al., 2009; Dumitru et al., 2013; Haddara, 2016; Mandava, 2024).

Conclusion:

The chronological progression of research on organizational fit, misfit, and customization in ERP implementation reveals a deepening understanding of the complex interplay between technology and organizational context. Early studies established the foundational importance of fit, while subsequent research explored the practical challenges of addressing misfits through customization. Case studies and empirical investigations have underscored the critical role of change management and contextual adaptation. In the current era, the rise of cloud ERP solutions introduces new dimensions to the fit/misfit debate, but the core principles remain unchanged: successful ERP implementation requires a careful balance between standardization and customization, ongoing stakeholder engagement, and a relentless focus on aligning technology with organizational needs.

1.4.Sector-Specific & Modern Perspectives:

Enterprise Resource Planning (ERP) systems have long been central to organizational integration and efficiency. However, as business environments evolve and technology advances, the perspectives on ERP systems have shifted from monolithic, one-size-fits-all solutions to more nuanced, sector-specific, and modern approaches. This review traces the latest scholarly developments in ERP research, focusing on the transition to process-centric platforms, the rise of cloud-based ERP solutions, and the reconceptualization of ERP from a software architecture perspective. The review is organized chronologically to highlight the progression of thought and innovation in this domain.

1.4.1.From Full-fledged ERP Systems Towards Process-centric Business Process Platforms (2023):

The most recent research, "From Full-fledged ERP Systems Towards Process-centric Business Process Platforms" (Böhme et al., 2023) marks a significant shift in the conceptualization of ERP systems. The authors argue that traditional ERP systems, while effective in integrating core business functions, often struggle to keep pace with the dynamic and process-oriented demands of modern enterprises. The paper traces the evolution of ERP from rigid, module-based architectures to more flexible, process-centric business platforms.

A key theme in this work is the increasing need for ERP systems to support end-to-end business processes that cut across organizational silos. The authors highlight how process-centric platforms enable greater agility, allowing organizations to adapt workflows and integrate new digital services more rapidly. This shift is particularly relevant in sectors where business processes are complex and subject to frequent change, such as manufacturing, logistics, and service industries.

The study also discusses the technological enablers of this transition, including the adoption of microservices, APIs, and low-code development environments. These innovations facilitate the decomposition of monolithic ERP systems into modular, interoperable components, making it easier to customize and extend ERP functionality to meet sector-specific requirements. The paper concludes that the future of ERP lies in its ability to serve as a flexible backbone for digital business processes, rather than as a static repository of transactional data. Böhme et al. explore why many contemporary organizations, especially SMEs and fast-growing firms, struggle with conventional, monolithic ERPs and argue that a new breed of process-centric platforms better serves

modern sector needs (startups, digital-native businesses, service sectors). The paper reframes ERP impact in terms of how well systems support rapid innovation, multi-tool ecosystems, and industry-specific process variation.

Traditional ERP suites impose high entry barriers (cost, complexity) and often fail to interoperate smoothly with the heterogeneous tooling used in modern sector contexts (e.g., e-commerce, digital services). The authors advocate treating business processes as first-class artifacts, improving semantic process models, and building modular, cloud-native platforms that interoperate via APIs and standard data semantics, as for sectoral application, they emphasize that process-centric designs let industry-specific workflows (e.g., retail order-to-cash, health care patient journeys) be modeled and adapted quickly without heavy core customizations.

Process-centric platforms can reduce time-to-value and integration friction in sectors that rely on rapid configuration and cross-tool orchestration, thereby improving operational agility, a modern performance dimension beyond classic ROI metrics.

1.4.2. Critical success factors of cloud ERP in the enterprise business:

The rise of cloud computing has introduced new paradigms in ERP implementation and usage, as explored in "Critical Success Factors of Cloud ERP in the Enterprise Business" (Mandava, 2024). This paper examines the unique challenges and opportunities presented by cloud-based ERP solutions, with a particular focus on enterprise-level adoption.

The authors identify several critical success factors (CSFs) that distinguish cloud ERP from traditional on-premises systems. These include data security and privacy, system integration capabilities, vendor reliability, and the scalability of cloud infrastructure. The research emphasizes that while cloud ERP offers significant advantages; such as reduced upfront costs, faster deployment, and easier access to updates, it also introduces new risks, particularly around data governance and compliance.

Sector-specific considerations are central to this analysis. For example, highly regulated industries such as finance and healthcare face stringent requirements for data protection and auditability, which can complicate cloud ERP adoption. Conversely, sectors with rapidly changing business models, such as retail and technology, may benefit from the agility and scalability of cloud solutions.

The paper also highlights the importance of organizational readiness, change management, and user training in ensuring successful cloud ERP implementation. The findings suggest that enterprises must carefully assess their sector-specific needs and risk profiles when selecting and deploying cloud ERP systems, and that ongoing collaboration with vendors is essential to address evolving business and regulatory requirements.

Mandava focuses on cloud ERP; the dominant deployment model for modern ERP, and synthesizes what drives successful outcomes in enterprise contexts. Sector relevance is emphasized through discussion of cloud ERP adoption in industries where regulatory compliance, multi-site operations, or rapid scaling matter. Many classic CSFs remain crucial (executive sponsorship, training, process clarity), but cloud ERP brings distinct priorities: vendor/service management (SLAs), data security & privacy, integration-as-a-service, and continuous update cycles. Cloud ERP reduces capital outlay and speeds initial deployment, often benefitting sectors with volatile demand or rapid geographic expansion (e.g., retail, logistics). However, converting quick deployment into sustained performance gains depends on governance, change management, and sector-specific compliance handling. As well as improving agility and scalability across sectors, but organizational practices determine whether that agility leads to measurable operational or financial performance. The paper aggregates diverse sources; it is more diagnostic and prescriptive than a source of rigorous causal estimates. Sector-level empirical comparisons are limited.

1.4.3. Reconceptualizing ERP systems from a software architecture perspective:
The most recent contribution, “Reconceptualizing Enterprise Resource Planning (ERP) Systems from a Software Architecture Perspective Using a Framework based on ERP System Characteristics” (Mossa et al., 2025), offers a fresh lens through which to view ERP systems. The authors propose a comprehensive framework that redefines ERP as a set of architectural patterns and characteristics, rather than as a monolithic software product.

This paper underscores the growing complexity and diversity of ERP deployments across sectors. The authors argue that modern ERP systems must be architected to support a wide range of business processes, integration scenarios, and deployment models;including on-premises, cloud, and hybrid environments. The framework presented in the study identifies key architectural characteristics such as modularity, extensibility, interoperability, and scalability, which are essential for meeting the diverse needs of different industries.

A notable aspect of this research is its emphasis on the alignment between ERP architecture and sector-specific business requirements. For instance, manufacturing firms may prioritize real-time process integration and shop-floor connectivity, while service organizations may focus on customer relationship management and analytics. The paper also discusses the implications of emerging technologies, such as artificial intelligence, machine learning, and the Internet of Things (IoT), for ERP architecture, highlighting the need for systems that can evolve in tandem with technological advancements.

The study concludes that a software architecture perspective enables organizations to better evaluate, select, and customize ERP solutions to fit their unique sectoral contexts. This approach also facilitates the ongoing evolution of ERP systems, ensuring that they remain relevant and effective in supporting digital transformation initiatives.
This 2025 study reconceptualizes ERP systems as software architectures rather than as fixed product suites. The framework identifies architectural characteristics (modularity, API surface, cloud-native design, upgradeability) and maps trade-offs relevant to sector deployment choices; e.g., heavy-regulation sectors may prefer controlled upgradeability, while digital-first sectors gain from modular APIs.

Architecture choices (degree of modularity, openness of APIs, cloud-orientation) systematically affect long-term costs, customization needs, and the ease of integrating sector-specific extensions or third-party tools. The paper offers an explanatory mechanism for heterogeneity in ERP outcomes across sectors: the software architecture either enables or constrains later adaptations needed for sectoral business models.
By providing an explicit link between architecture and sectoral needs, the paper suggests new, measurable predictors of ERP performance; e.g., number of external integrations supported, frequency of non-disruptive upgrades, or time to add sector-specific process models.

1.4.4.Cross-paper synthesis:

- Architecture & deployment model matter for sector fit: All three works converge on the idea that how an ERP is built and delivered (cloud vs on-premise, monolithic vs modular) determines how well it can meet sector requirements (regulation, speed, customization). (Böhme et al., 2023) architecture paper explicitly link architectural properties to sector adaptability.
- Process-centricity enables sector specialization with lower cost: Treating processes as first-class artifacts (Böhme et al., 2023)lets organizations express sector-specific

workflows without deep core customizations, shortening the path to operational benefits in sectors with bespoke processes (healthcare, manufacturing variants, professional services).
- Cloud ERP shifts the balance from CAPEX to governance & vendor management.: Mandava shows cloud ERP reduces capital and speeds rollout; attractive to sectors with rapid scaling needs, but increases the importance of vendor SLAs, data governance, and ongoing integration management.
- Interoperability & APIs are the engine of modern ERP performance: The architecture continuum highlights openness and API capability as enablers for connecting sector-specific tools (industry portals, regulatory reporting systems, IoT feeds), which fuels measurable operational improvements.
- Organizational mechanisms still mediate outcomes:

Across all three studies, technology is necessary but not sufficient: change management, data quality, and governance remain decisive; especially in sectors with strict compliance or complex supplier networks.

Strengths of the combined evidence:

- The three papers provide a modern, multi-dimensional foundation linking architectural design, cloud deployment, and process modeling to sectoral performance concerns.
- They generate concrete, testable hypotheses: e.g., ERP modularity positively moderates the relationship between ERP adoption and time to implement sector-specific workflows.

Weaknesses / common limitations:

- Lack of large-scale causal empirical validation. None of the three produces broad cross-sector panel estimates that quantify effect sizes (e.g., % change in cycle time, inventory turns, or profit margins).
- Measurement gaps. The 2025 framework needs operational metrics (how to measure “modularity” or “semantic process maturity”) to be empirically useful.
- Rapid change risk. Cloud, microservices, and AI continue evolving; frameworks from 2023–2025 need re-validation as vendors and standards shift.

Recent sector-specific and modern perspectives on ERP emphasize architecture and deployment as primary determinants of realized value. Böhme (Böhme et al., 2023) argue that process-centric, cloud-native platforms reduce integration friction for SMEs and digital-first firms by elevating business processes and semantic models. Mandava (Mandava, 2024) shows that while cloud ERP lowers upfront cost and accelerates deployment, the conversion of technical gains into sustained operational benefits is

mediated by governance, vendor management, and change management. Extending these views, recent work (2025) reconceptualizes ERPs as software architectures along a monolithic-to-modular continuum, suggesting that architecture constrains customization costs, upgrade paths, and the ability to adopt sector-specific extensions, all of which influence long-term performance. Together, this literature suggests modern ERP performance depends on both architectural design and organizational capability to exploit it (Böhme et al., 2023; Mandava, 2024)

Conclusion:

The chronological progression of research on ERP systems reveals a clear trend towards greater flexibility, sector-specific adaptation, and architectural sophistication. Early ERP systems were characterized by their monolithic structure and focus on transactional integration. Recent scholarship, however, emphasizes the need for process-centric platforms, the strategic adoption of cloud-based solutions, and the reconceptualization of ERP as a set of architectural patterns tailored to sectoral needs.

Collectively, these studies underscore the importance of aligning ERP systems with the unique requirements of different industries, leveraging modern technologies to enhance agility, and adopting architectural frameworks that support ongoing innovation. As organizations continue to navigate the complexities of digital transformation, these modern perspectives provide valuable guidance for maximizing the value and impact of ERP investments.

2.Conceptual framework:

In this segment we will cover the theoretical aspect of our research, including all concepts and terminology that are critical for having comprehensive overview over this research's scope and topic.

The totality of these concepts and terminology will assist in building a mind map for the reader, allowing them to traverse the titles smoothly, from the fundamental definitions of ERP systems, Project management, Strategic management and organizational fit.

2.1.ERP:

in this section we will go over an overview of the Enterprise Resources Planning (ERP) class software.

2.1.1.Defintion:

In its earliest conception, ERP was understood as the natural successor to manufacturing planning systems (MRP II) . It was described as a system that integrates diverse business functions into a single framework, ensuring that data and processes flow seamlessly across the entire organization. (F.C. 'Ted' Weston Jr, 2025). Although that early definition as it didn't include the automatic interfaces between account transactions and the corresponding operational activities. Houssein adds to this definition by describing ERP as "an integrated computer-based system that manages internal and external organizational resources." (Bezawada, 2012).

The definition was carried over to the modern times as the APICS dictionary defines ERPs as "framework for organizing, defining, and standardizing the business processes necessary to effectively plan and control an organization so the organization can use its internal knowledge to seek external advantage,", denoting a clear evolution in the perception and capabilities of ERP systems.

2.1.2.Characteristics:

- the main and most well known characteristic of ERP system is the centralized nature, with a single central database shared by all the modules (Mohamed Abdalla Nour, n.d.), allowing for efficient communication about the different functionality blocks (Yasmin Mossa et al., 2025)
- the modular architecture, heavily inspired by SOA of web apps, including but not limited to HR, CRM, FA, PR, MM, IMM modules etc (Muhammad YASIR Khan et al., 2025). in addition to more recent modules like the Customer Feedback, which was originally a functionality included in the CRM module, but recent innovations decided to separate the 2 (hosting company (2025). information supplied during internship. Unpublished internal documents.)
- the layered architectures, that can be most commonly classified as 2 tier architecture and 3 tier architecture (Nishad Nawaz, 2025)
- high degree of configurability (settings modification) and customization (functionality modification), allowing the system to be flexibly adapt to the needs of the receiving company (Hong & Kim, 2002). Even though excessive modification quickly increases complexity and catalyzes bottlenecks.
- a comprehensive scope that covers the entirety of the business processes, providing an abstract holistic view over that is different from the fundamental per-department basis

(Nishad Nawaz, 2025)
- Interoperability and support for legacy systems through custom integrated implementation and APIs (Yasmin Mossa et al., 2025)
- high levels of security and through restrictions to date access, compliance to industry safety standards and reducing manual intervention (Oracle), with cloud, on-premise and hybrid following distinct security measures

2.1.4.Disadvatages:
- Implementing ERP systems demand considerable initial spending on software licenses, hardware infrastructure, external consulting, and staff training, with recurring expenses for maintenance and upgrades adding to the financial burden.
- ERP initiatives are inherently complex and can span several months or even years, often facing risks of project delays and cost escalations.
- Workforce resistance is a common challenge, as employees may be reluctant to abandon familiar routines; ensuring user acceptance requires robust training programs and well-managed organizational change.
- Tailoring ERP solutions to align with specific business practices is often expensive and can complicate future system upgrades, while technical difficulties may arise when connecting with older or third-party applications.
- The rollout phase can disrupt day-to-day operations, leading to temporary declines in productivity and higher chances of errors during the adjustment period.
- Companies frequently develop a heavy reliance on ERP vendors for upgrades, integration support, and troubleshooting, which may reduce organizational flexibility and negotiating leverage.
- Traditional on-premise ERP solutions may not scale effectively in fast-growing environments, while cloud-based platforms can introduce concerns around data security, internet reliability, and regulatory compliance.
- Hidden or underestimated costs such as downtime, productivity losses or training costs, can significantly inflate total project expenses.
- Weak project preparation, poor alignment between the system and business processes, or insufficient change management strategies are major contributors to ERP implementation failures.

2.2.Strategic alignment and organizational fit:
next we go over basic concepts and terminology regarding the strategic alignment

2.2.1.Defintion of strategic alignment:

The National Institute of Standards and Technology defines the concept of alignment as "the process of aligning all stakeholders, internal and external, so that all are focused and committed to achieving a shared organizational vision."(Cheermudgeon", 2018)

PMI defines strategic alignment as the crucial bridge between organizational strategy and strategy execution. Successful alignment ensures that initiatives, such as projects or operational plans, directly serve the company's strategic goals, reducing inefficiencies and reinforcing performance (PMI Global Congress 2013).

From these definitions, we can conclude that strategic alignment is an important linking bridge that parallelize between the business strategy; that allows reaching goals under external and internal factors, while keep stakeholders opt-in); and the actual execution of the project implementation and usage that pours into achieving the set goals.

2.2.2.Models of strategic alignment:

the most popular and widely used model of representing strategic alignment is Strategic Alignment Model SAM, built by Henderson and Venkatraman (John C. Henderson & N. Venkatraman, 1991)

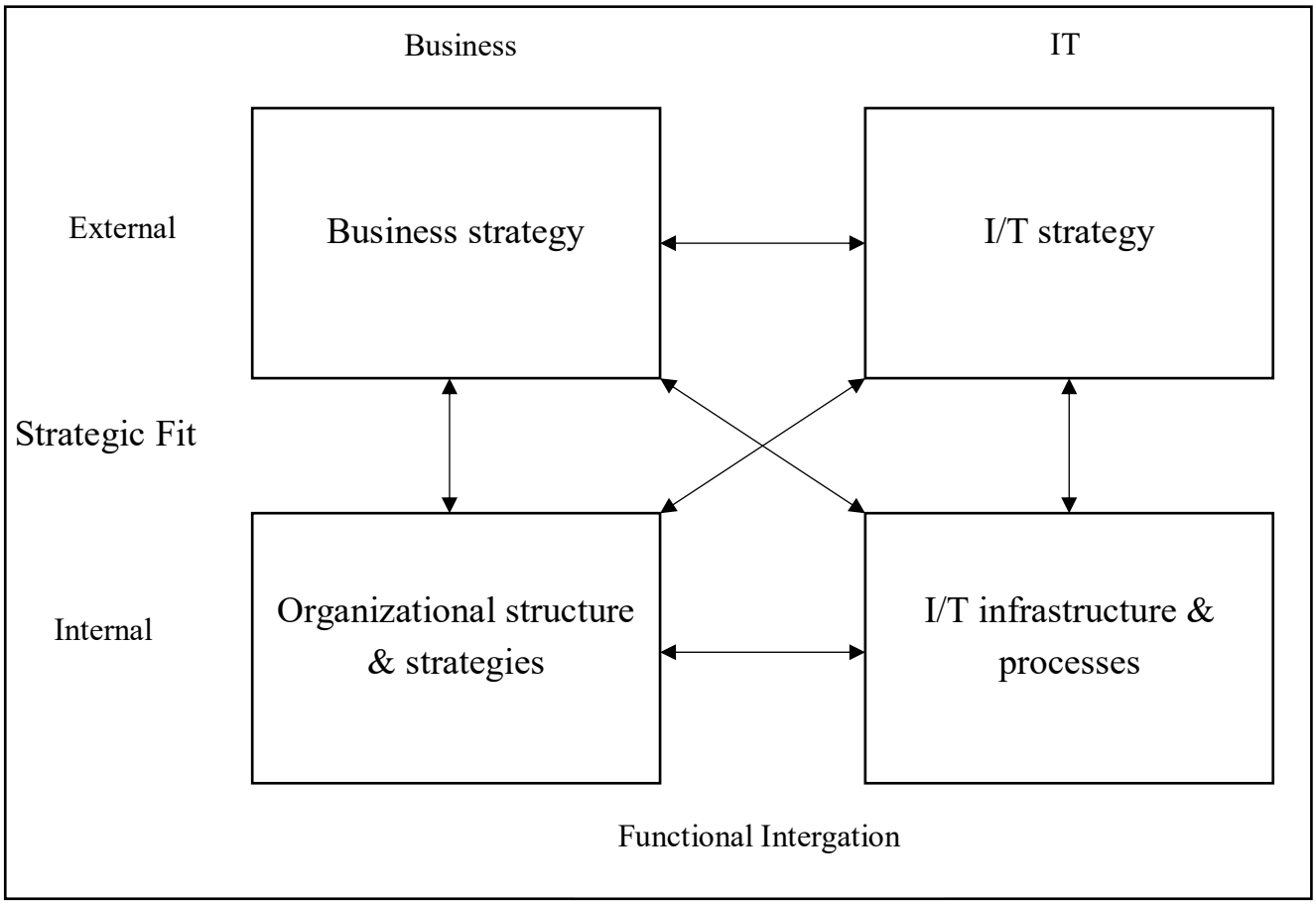


Figure 1: The proposed strategic alignment model. John C. Henderson & N. Venkatraman, 1991. page 7

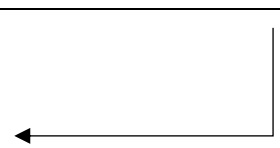
Label	Cross-domain persepctive	Common domain anchor	I/T planning method example
Technology exploitation		Technology strategy	Opportunity identification
Technology leverage		Business strategy	G/CUE
Strategy implementation		Business strategy	CSF
Technology implementation		Technology strategy	Service-level contracting

Table 1: Four Dominant Perspectives on l/T Planning. John C. Henderson & N. Venkatraman, 1991. page 15

There are 4 primary modes of alignment between the department and the rest of the organization, depending on what is the primary and secondary sources for decision making, and which segment is in service of the other:

- Technology exploitation: This configuration is typical of industries heavily dependent on technology, where IT becomes the foundation of competitiveness and continuity. In such cases, the IT department initiates and guides the broader business strategy, positioning technology as the organization's strategic core.
- Technology leverage In this approach, the IT function plays a central role in turning management's strategy into reality. It does so by introducing innovative processes and by designing the technical infrastructure and workflows needed to effectively implement the chosen direction.
- Strategy implementation: Here, corporate leadership and business managers are the primary architects of strategy, while IT adjusts its systems to meet their requirements. The information system is tailored to ensure smooth alignment with established processes, guaranteeing performance in terms of efficiency, reliability, cost management, and timeliness.
- Technology implementation: In this last model, IT and business functions collaborate

closely. The IT department defines and manages the technological infrastructure and related processes to ensure high-quality service delivery, thereby sustaining and reinforcing the organization's daily operations.

2.2.3.Organizational fit:

the foundational concepts for organizational fit were first constructed by the original works of Kim and Hong, in which they define organizational fit as "The degree of alignment between the ERP model and the organization's needs in terms of data, process, and user requirements." (Hong & Kim, 2002). followed by the more recent recognition of the concept "organizational misfit" as "The degree to which the functionality and processes embedded in the ERP system do not match the organization's existing processes, data, or structures." (Strong & Volkoff, 2010). From this we can deduce that organizational fit represents a spectrum, along the axis of which the functionality and processes of the implemented ERP may or may not match/align to the existing functionalities and goals of the organization.

The spectrum can be split into 3 overlapping zones; misfit, partial fit and perfect fit (Neil A. Morton & Qing Hu, 2008), whereas they represent increasing degrees of alignment between the ERP's and the organization's goals and functionalities.

To organizational fit multiple dimensions according to authors (Chen et al., 2009; Neil A. Morton & Qing Hu, 2008):

- structural fit: Describes the degree of alignment between the ERP's architecture, modules, workflows, and hierarchies. and the company's organizational architecture, departments, reporting systems, and decision-making structures. Misalignment here can generate inefficiencies and organizational pushback.
- cultural fit: Concerns the harmony between the ERP's underlying principles (such as standardization and transparency) and the organization's cultural values (such as adaptability and independence). A poor fit can foster user resistance and limit effective adoption.
- data fit: Involves the compatibility between the ERP's data models and unified interfaces, and the company's existing data landscape and informational demands. A weak fit can create integration problems and hinder decision quality.
- strategic fit: Represents the extent to which the ERP system contributes to advancing the organization's strategic goals and competitive agenda. When misaligned, the ERP risks obstructing rather than reinforcing strategic achievement.

- process fit: Refers to how closely the ERP's predefined processes correspond to the organization's current ways of working. A strong match minimizes customization requirements and enables a smoother rollout.

2.3.IT project management:

in this section we will go over the fundamental and modern concepts regarding IT projects management IT projects.

2.3.1.Defintion:

According to the project management institute PMI, project management is defined as "the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.". is then extended upon to include the scope of IT projects in the PMBOK, and define unique characteristics and deliverables to it like software and technological infrastructure (*The Home of Project Management | Project Management Institute*, n.d.).

2.3.2.Critical success factors:

there are many factors that play a crucial role in the success or failure of IT projects implementation , denoted in the industry as CSFs, among the most important of CSFs we find:

- User and Client Involvement: Active engagement of end-users and clients throughout the project ensures accurate requirements gathering and increases alignment between deliverables and business needs.
- Executive Sponsorship: Visible and sustained support from senior management provides authority, resources, and strategic alignment, while also helping to mitigate resistance to change.
- Communication and Feedback Mechanisms: Transparent, timely, and multidirectional communication fosters alignment across stakeholders. Structured feedback loops facilitate early problem detection and resolution.
- Project Leadership: The expertise, leadership qualities, and decision-making skills of the project manager are essential for handling complexity, motivating teams, and ensuring progress.
- Planning and Control: Comprehensive planning regarding scope, objectives, timelines, and budgets, combined with systematic monitoring, enhances progress tracking, risk management, and adherence to commitments.
- Change and Configuration Governance: Formalized processes for handling changes and system configurations reduce disruptions, prevent scope creep, and safeguard project

stability.

- Clarity of Scope and Objectives: Clearly defined, realistic, and commonly agreed-upon objectives minimize ambiguity and reduce the likelihood of project drift.
- Team Capability and Diversity: A competent, multidisciplinary project team enhances innovation, problem-solving, and adaptability to evolving conditions.
- Vendor and Partner Collaboration: Reliable performance and strategic alignment of external vendors and partners are critical to success in projects that depend on third parties.
- Risk Management Practices: Ongoing identification, assessment, and mitigation of risks enhance project resilience and reduce the likelihood of failure.
- Balancing Performance Criteria: Meeting the traditional "iron triangle" of cost, time, and quality remains essential but should be complemented by broader measures that the iron triangle doesn't account for.

(Abirami Radhakrishnan et al., 2025; Clarke, 1999)

2.3.4.Techniques:

In this segment we will explore the most widely adopted approaches in IT project management, including traditional, agile, and hybrid methods, as well as the tools and frameworks that support them. The discussion is grounded within scope of the what is relevant for the upcoming case study.

- The Waterfall model: a sequential, phase-based approach where each stage of the project, such as requirements gathering, design, development, testing, and deployment, must be completed before the next begins. This method is particularly well-suited to projects with clearly defined requirements and minimal expected changes during execution. In ERP implementations, Waterfall is often chosen for its emphasis on thorough documentation, predictable timelines, and structured progress tracking. However, its rigidity can make it less responsive to evolving business needs or unforeseen challenges (Royce, 1970)

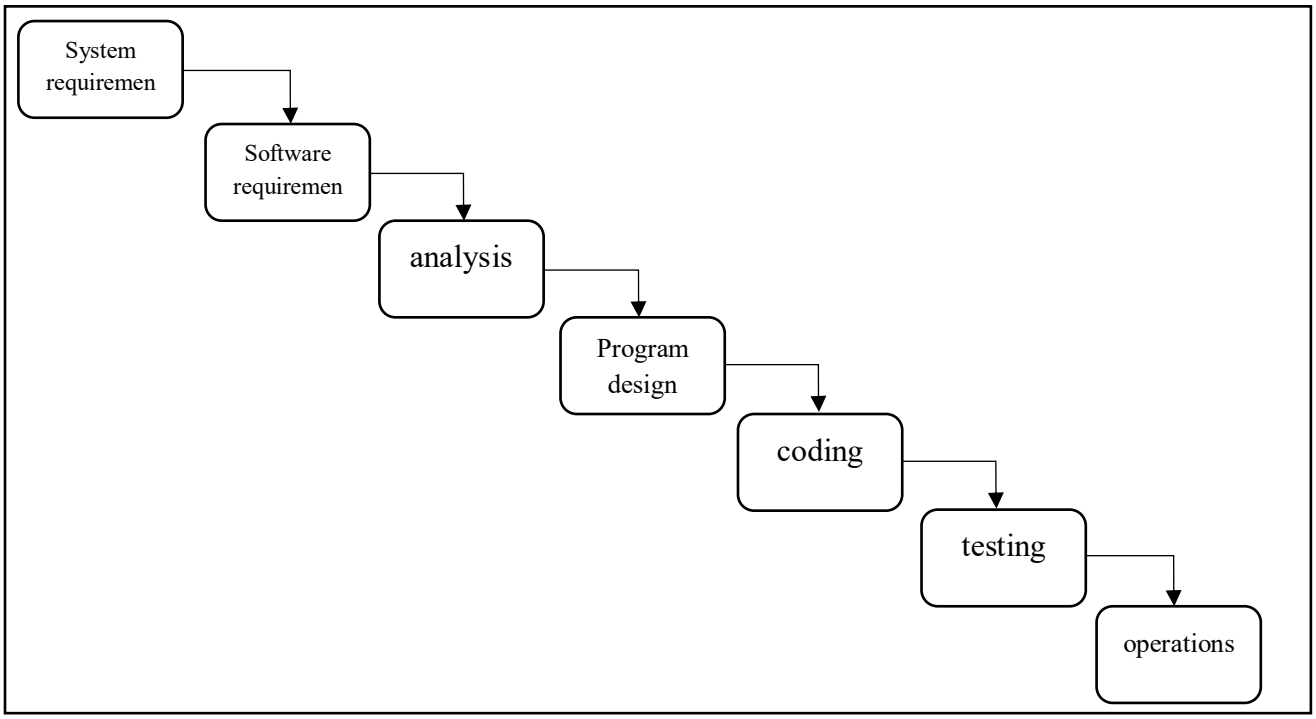


Figure 2: lementation steps to deliver a small computer program for internal operations. (Winston W, 1970), page 2

- Scrum: an iterative, team-based framework that organizes work into short cycles called sprints, typically lasting two to four weeks. Each sprint delivers a potentially usable increment of the product, with regular reviews and retrospectives to foster continuous improvement. Scrum is especially popular in software development as it provides an SDLC framework that strikes a balance between flexibility and stability, and is increasingly applied to ERP configuration and customization phases (Schwaber & Sutherland, 1995)

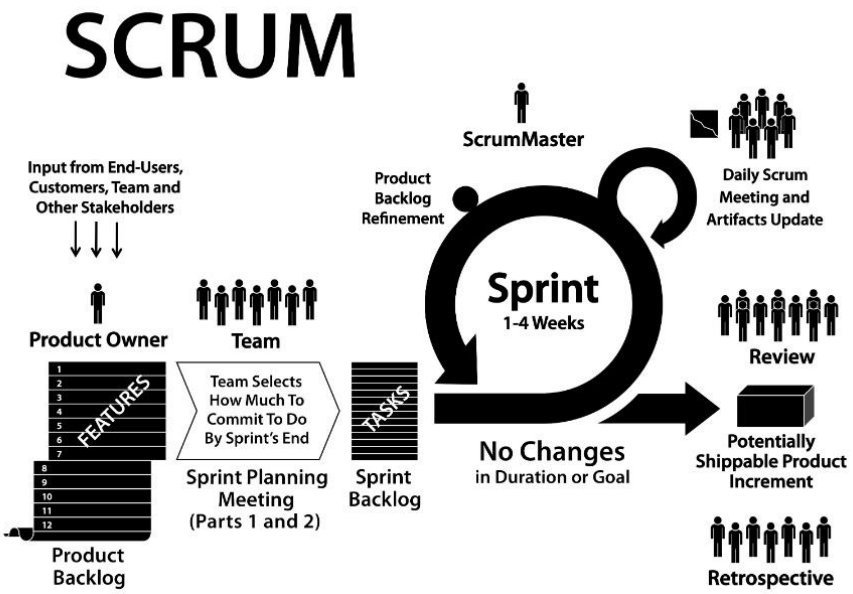


Figure 3: Scrum. (Sutherland, 2021), Page 17

Hybrid project management blends the structure and predictability of traditional methodologies with the flexibility and responsiveness of agile approaches. In ERP implementations, a hybrid model often involves using Waterfall for initial planning, architecture, and integration, while applying Scrum for module development, customization, and user training

Across methodologies, several best practices consistently contribute to IT project success:
- Active stakeholder engagement and clear communication
- Strong executive sponsorship and resource commitment
- Comprehensive planning and risk management
- Continuous monitoring and adaptation
- Robust change management and user training
- Selection of appropriate methodologies and tools for the project context

2.4.Interconnection:

in this section we will describe the bi-directional relations between the 3 previously explored concepts within the context of IT projects management. From an organizational, technical and performance dimensions, their interconnection can be summarized and visualized as such:

2.4.1.ERP ↔ Strategic Alignment:

- ERP capabilities must reflect and support strategic priorities.
- Strategic goals guide ERP scope, customization, and process redesign.
- Alignment gaps risk project failure or suboptimal benefits.

2.4.2.ERP ↔ Project Management:

- Project management governs ERP implementation phases.
- Effective management reduces risks, controls costs, and enhances quality.
- Influences user acceptance and system utilization.

2.4.3.Strategic Alignment ↔ Project Management:

- Project management translates strategic objectives into actionable plans.
- Continuous alignment monitoring supports adaptive decision-making.
- Leadership maintains alignment and manages change.

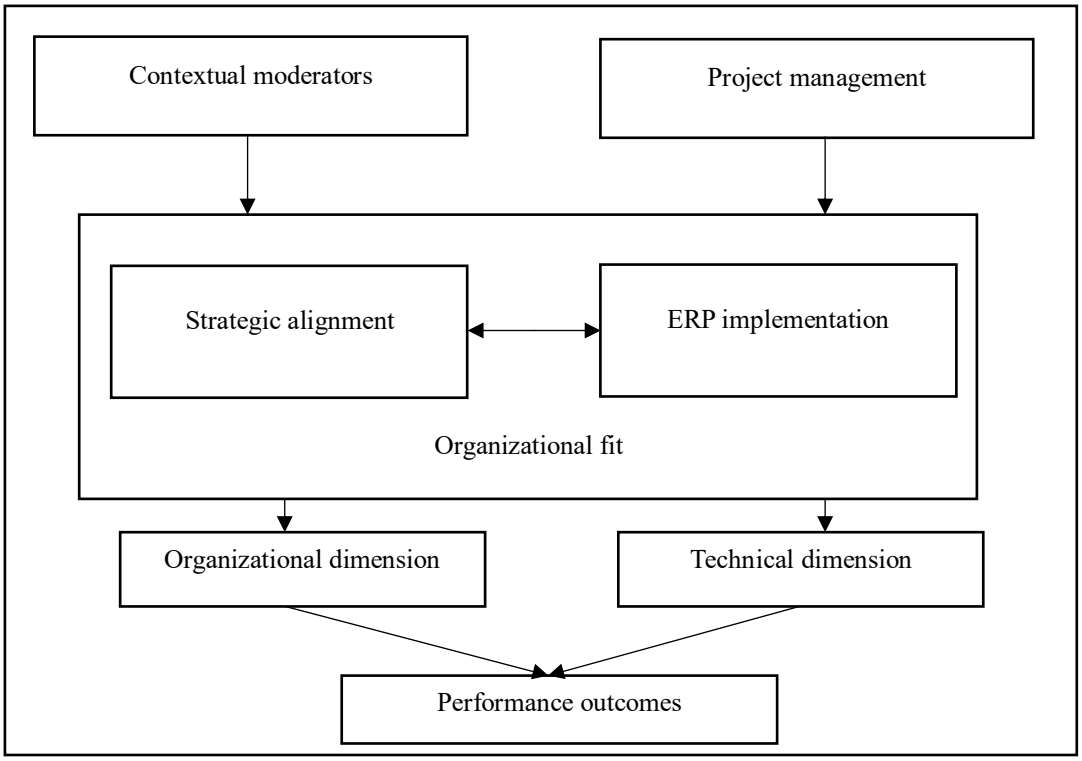


Figure 4: visual representation of the interrelationships between the studied variables, elaborated by us

CHAPTER 02: Research methodology and host organization

1.Research methodology:

In this section, we will go over the reasoning behind our choice theme, choice of the host and client company, an overview of our methodological framework, in addition to the limitations and restriction we faced during realizing this work. This overview will give context to the nature of the work and of the concluded results without our objectives.

1.1.Theme choice:

The choice of this theme is primarily motivated by our academical and professional interest, by allowing direct observation to the reality of utilizing ERP systems within the Algerian organization. With a direct observation on the fundamental concepts like organizational fit, strategic alignment and unified interfaces, we can build links between the academic formation and the professional reality within the field of my study.

The relevance of this theme lies in its importance in the current professional and academic context. The topic responds to a real need for analysis and improvement, offering a contribution not only to academic literature but also to practical decision-making in organizations. By addressing this issue, the work aims to shed light on existing challenges and provide a conceptual interface to reflect the actual situation within an existing organism.

Finally, the choice of this theme is justified by its feasibility and originality. The availability of sufficient resources and access to reliable data ensure that the research can be conducted within the given timeframe and scope. which distinguishes it from more commonly treated subjects and opens the way to fresh perspectives. This balance between feasibility, academic contribution, and novelty reinforces the pertinence of the theme.

1.2.Research objective:

The primary objective of this research is to explore and evaluate the reality of the overall impacts of a newly implemented ERP system on the operational efficiency and organizational performance within an organization.

Specifically, the study aims to assess the effectiveness of the technical integration of the ERP system with existing IT infrastructure and its impact on data flow and accessibility. By seeking to assess the improvements in performance metrics, such as processing times, system uptime, and user satisfaction, following the implementation of the ERP system, and the all round functional enhancements provided by the newly integrated system and under what conditions.

The research will also evaluate the level of organizational fit by examining employee adoption rates, training effectiveness, and cultural alignment with the organization's values and processes. Furthermore, the study will investigate changes in operational efficiency resulting from the ERP system, focusing on workflow automation, process optimization, and resource allocation. Lastly, it aims to identify and evaluate the functional enhancements provided by the ERP system, including improvements in reporting capabilities, data analytics, and customer relationship management.

The expected outcomes of this research will provide actionable insights aimed at linking our academical formation with the realizable situation within a functioning organization.

1.3.Methodological approach:

This thesis employs a mixed-methods approach to comprehensively assess the impact of the newly implemented ERP system on the client organization. The primary data collection methods include observation, semi-structured interviews, analysis of previous documents, and descriptive data analysis. By integrating these diverse methodologies, the research aims to capture a holistic view of the ERP system's effects on organizational performance and operational efficiency.

Observation will be utilized to gather real-time insights into how employees interact with the new ERP system in their daily tasks. This method will allow us to identify patterns of usage, potential challenges, and areas for improvement in the system's functionality. Observational data will be complemented by semi-structured interviews with employees, management, and IT personnel. These interviews will facilitate in-depth discussions about their experiences with the ERP system, perceptions of its impact on workflows, and suggestions for enhancements. The semi-structured format allows for flexibility in exploring topics that may arise during the conversation, ensuring that the research captures a wide range of perspectives.

In addition to primary data collection, the analysis of previous documents, such as project reports, training materials, and performance metrics, will provide valuable context and background information. This document analysis will help identify historical trends and benchmarks against which the new system's performance can be evaluated. Descriptive data analysis will be employed to quantify the findings from observations and interviews, allowing for a systematic comparison of pre- and post-implementation performance metrics. By triangulating data from these various sources, the research aims to provide a

nuanced understanding of the ERP system's impact on the client organization, ultimately leading to actionable recommendations for optimizing its use.

1.4.Encountered difficulties:

During the course of this research, several significant challenges emerged that impacted the data collection and analysis process. One of the primary difficulties was the presence of undocumented instances related to the implementation of the ERP system. Many employees reported experiences and challenges that were not formally recorded, leading to gaps in the available data. This lack of documentation made it challenging to fully understand the context and nuances of the transition, as well as to identify specific issues that may have arisen during the implementation phase. Consequently, the research relied heavily on anecdotal evidence, which, while valuable, may not provide a complete picture of the overall impact of the ERP system.

Another notable challenge was the limited access to quantitative data that could have enriched the analysis. Key performance metrics, such as processing times and user satisfaction scores, were either not collected or were unavailable due to data privacy concerns. This absence of quantitative data hindered the ability to conduct a thorough statistical analysis, making it difficult to draw definitive conclusions about the ERP system's effectiveness. As a result, the research had to rely more on qualitative insights gathered from observations and interviews, which, while informative, may not fully capture the magnitude of the system's impact on organizational performance.

Additionally, the inability to directly observe the transition phase of the ERP implementation posed a significant obstacle. The research was conducted after the system had already been implemented, limiting the opportunity to witness firsthand the challenges and dynamics of the transition process. This lack of direct observation meant that the research could not capture real-time reactions and adaptations from employees as they navigated the change. Instead, the study had to depend on retrospective accounts from IT staff and the different employees, which may be influenced by their current perceptions rather than their immediate experiences during the transition. These challenges underscore the complexities of conducting research in dynamic organizational settings and highlight the need for comprehensive data collection strategies in future studies, in order to compensate for the restrictions imposed on this research.

2.Hosting organization:

In this section we will overview the supplier organization (our host) B-LINK Solutions, our choice criteria, as well as the target client organization for the host Alliance Assurances

2.1.Company Profile:

B-link solutions is a small sized (11-50) B2B Algerian company with an international presence, among the leaders within the industry of integrated systems and ERPs development. Founded in April of 2021 and located in Ouled Fayet – Algiers.

Their primary activity is the development and integration of ERP systems within their clients and partners, as well as accompanying them through the entire implementation project and providing continuous support and updates after the implementation projects are done. Utilizing a tech stack bundle consisting of the following technologies

Technology	Nature
HTML, XML	Markdown languages
CSS	Styling language
JS, Java, Dart	Programming languages
Oracle DBMS, SQL	Databases technologies
RedHat / JVM	Enterprise OS / virtual machine
Angular, Flutter, Bootstrap, Sass	Web frameworks and toolkits

Table 2:used technologies by B-Link Solutions. elaborated by us from the organization's official website

B-Link solutions holds the following mission, vision and values:

mission	**vision**	**values**
Our mission is to provide the best reliable insurance management solutions to help our clients improve the efficiency of their processes and the profitability of their business. Our mission is to continuously optimise the insurance activities of our customers through our innovative solutions, services and products. We are committed to simplifying the management of insurance processes, reducing costs and enabling informed	Become a leader in the insurance market by constantly exceeding the expectations of our customers and providing them with the best technological solutions for insurance management. Transforming the insurance landscape through integrated and innovative solutions, facilitating access, transparency and efficiency for all actors in the insurance sector. Develop and maintain the most innovative, reliable and cost-effective solutions,	We pledge to be honest, trustworthy and fair in all our transactions, and to assume responsibility for each of our actions. Our success is based on an in-depth understanding of our customers, and we are committed to providing exceptional service and value. We are striving to build a lasting relationship with all our clients, thus becoming partners in the performance of their missions. We provide products and services that

decision-making through advanced data analysis. By combining state-of-the-art business strategy with IT expertise, we are developing high-performance and efficient insurance solutions that allow companies to stay ahead of the curve.	and meet the growing needs of our customers through the rapid deployment of new developments.	meet their expectations or even exceed them. We provide world-class products and services that meet the highest standards of design, manufacturing, reliability and maintainability.

Table 3: Mission ,Vision and values of B-Link Solutions. elaborated by us from the organization's official website

2.2.Selection Criteria:

our choice of the hosting was dependent on a multitude of factors**:**

- Reputation and Industry Standing: The company's reputation and recognition in the industry, as well as its national and international presence.
- B-Link's mission, vision, values, and projects align with your personal career aspirations and professional development goals. Giving us a big potential for gaining hands-on experience and insight from industry professionals.
- Innovative Practices: The company's commitment to innovation and technology, showcasing its role as a leader in adopting new practices or developing cutting-edge solutions.
- The organizational culture, including values such as collaboration, innovation, flexibility and adaptation to the Algerian ecosystem, reflects the level of experience and commitment for achieving the designated goals.
- B-Link solutions' leadership is characterized with its +25YOE, deep industry knowledge and a strong track record of driving growth. This combination fosters stability, flexibility and allows B-Link to operate on experience-driven decision making and orientation.
- The opportunity to build a professional network with industry professionals, peers, and alumni, which can be beneficial for future career opportunities.
- Positive Work Environment: Insights into the work environment, including employee satisfaction and engagement, which can enhance your overall internship experience.

2.3.Client company profile:

Alliance Assurances, a client and partner organization to B-Link solutions, is a large sized (201-500) B2B/B2C Algerian company. As the only insurance company in Algeria listed on the Algiers Stock Exchange, and the first to have designed automobile assistance,

Alliance Assurances represents itself to be among the leaders within the industry insurance services. Founded in 2004 and located in Ouled Fayet – Algiers.

Alliance Assurances specializes in insurance services in 3 large sectors: Automobile, Habitation and natural disasters. Each with hierarchy of services and modules with the integrated that was custom developed by B-Link solutions.

They provide for their clients an extensive collection of insurance protection policies and guarantees, under 3 major categories: automobile insurance, habitation insurance and natural disasters insurance. Each with their own set of guarantees and services that may overlap to cover shared risks.

Chapter 3: Results and discussion

3.1.Transition to the new ERP system:

The transition to a new ERP system is a pivotal moment for Alliance Assurances, particularly given its specialization in the insurance sector. This section delves into the multifaceted aspects of this transition, including the choice of supplier, assessment of the old system, project management procedures, and the organizational fit during the project. Additionally, it will address potential theoretical difficulties and obstacles that may arise.

3.1.1.Choice of supplier:

Choosing the right supplier is crucial for the successful implementation of a new ERP system. B-Link with its expertise in developing custom ERP solutions tailored for the insurance industry, presents a strong candidate. Factors to consider in this choice include:

- Experience in the Insurance Sector: B-link 's familiarity with insurance-specific requirements ensures that the ERP system will meet industry standards. However, a potential obstacle could be the supplier's previous experiences with similar projects, which may not fully align with Alliance Assurances' unique needs.
- Technological Compatibility: The new system's use of modern technologies, such as the Angular framework, should align with Alliance Assurances' existing infrastructure. A theoretical difficulty here could be the integration of legacy systems with new technologies, which may require additional resources and time.
- Support and Maintenance: The supplier's ability to provide ongoing support and updates is crucial for long-term success. A challenge may arise if the supplier's support team lacks adequate knowledge of the insurance domain, leading to delays in issue resolution.

3.1.2.Assessing the old system:

A thorough assessment of the old system is necessary to understand its limitations and the need for a new ERP solution. This evaluation can be broken down into several perspectives:

- Technical and performance perspective: The limited scalability was the most regressive factor in the technical context. As the service grew larger and larger the workloads increased exponentially and made upkeeping a continuous and stable uptime a big challenge. This in return caused heavy issues with performance, latency, unexpected freezes or desynchronization that overall affected the UX of both Alliance Assurances employees as (affecting their productivity), well as the ever-growing clients count (affecting their satisfaction). While the active and passive contribution of cyber security engineers managed to mitigate all sorts of attacks and data corruption, legacy systems may

pose security vulnerabilities due to outdated features or being exposed to new unpatched exploits, leading to potential data breaches. In addition to that, as pointed out by the employees in their reports, the outdated UI features can lead to misrepresentation of the available functionalities, causing unintentional misuses of the system.

Moreover, these old systems often struggle with data quality issues, which can affect decision-making and reporting, and may not comply with current regulations, exposing the company to legal risks. The dependency on key personnel with specialized knowledge to operate and maintain these systems can create knowledge gaps if they leave the organization. Collectively, these challenges highlight the need for companies to consider upgrading or replacing legacy systems to align with modern business needs and technological advancements.

- Organizational and operational perspective: The challenges faced by a modern company using an old system often intersect and create compounded issues that affect overall efficiency and employee morale. One significant challenge is resistance to change, as employees may be accustomed to the legacy system and hesitant to adopt new processes or technologies. This resistance can lead to lack of engagement and lower productivity, as employees may feel frustrated with the limitations of the old system, while simultaneously being reluctant to embrace potential improvements. Additionally, the reliance on outdated systems can create knowledge silos, where only a few individuals possess the expertise to operate and maintain the system. This dependency can lead to operational disruptions if those key personnel leave the organization, resulting in knowledge gaps that hinder the company's ability to function effectively.

Another organizational challenge is the misalignment between the old system and the company's strategic goals. As businesses evolve, their operational needs change, and legacy systems may no longer support the current objectives or workflows. This misalignment can lead to inefficiencies, as employees may have to work around the limitations of the system to meet their goals. Furthermore, the lack of integration with modern tools can hinder collaboration across departments, creating silos that impede communication and information sharing. Overall, these organizational challenges highlight the importance of aligning technology with business objectives and fostering a culture that embraces change, ensuring that the company can adapt and thrive in a competitive environment.

- Functional Perspective: Relying on the old system often left Alliance Assurances facing significant challenges due to inadequate functionalities and absence of modern features

that are essential for efficient operations. One of the primary issues is that legacy system completely a lot of critical functionalities that are now standard in contemporary software solutions. Features such as real-time data analytics, automated reporting, and user-friendly interfaces were missing, making it difficult for employees to perform their tasks effectively. This inadequacy lead to inefficiencies, as employees may need to rely on manual processes or workarounds to accomplish tasks that could be automated or streamlined with modern systems.

Additionally, the old system did not support the latest business processes or industry standards, resulting in a disconnect between the organization's operational needs and the capabilities of the software. With the rising intensive towards agile methodologies and customer-centric approaches, the legacy system did not provide the necessary tools to facilitate these practices, hindering collaboration and responsiveness. On top of that, the lack of integration with other modern applications can create silos of information, preventing seamless data flow and collaboration across departments. This functional gap not only affects day-to-day operations but also limits the company's ability to innovate and adapt to changing market demands. Addressing these functional deficiencies is crucial for ensuring that the organization can leverage technology effectively to enhance productivity, improve customer service, and maintain a competitive edge in the industry.

3.1.3.Project management procedures:

In this section, we will go over the entire implementation project, starting off from the primary entries and pre-implementation phase, to the iterative cycles and the chain of inputs and outputs

3.1.3.1.Pre-implementation:

the pre-implementation phase started off by exploring the requirements, needs, missing functionalities and updates to the current system. The primary source of these gathered requirements is the previous assessment of the existing system from multiple dimensions.

The gathered requirements were then studied and all technical and functional needs and constraints were documented into a comprehensive RFQ that was then sent to the Vendor B-Link (known as a client initiation) as part of the ETO initiative. In response, the Vendor then reviewed the RFQ and conducted a feasibility assessment study, and concluded with a detailed proposal that included:

- Scope definition and outlining of objectives, exclusions and deliverables
- An SLA proposal, covering performance metrics, support response times, uptime

guarantees,

- Technical approach proposal, suggesting the system architecture, technologies and hardware/software requirements and recommendations
- Times lines and milestones, in combination with approximate time estimations

A negotiation period then started where the client and vendor discussed further all documented information about the requirements, deliverables, costs and duration approximation. When a middle ground was reached, the implementation project could launch. With the solid pre-implementation phase, Alliance Assurances could accurately describe and calculate the potential for the most important factors and metrics such as ROI and TCO, as well as modeling orchestrated processes and chronological synchronizations, such as the cut-over transitioning and the go-live timing.

The final bundle of modules chosen for integration included a large set of interconnected modules on different levels of hierarchy. Some of them could be visually represented in this table covered some functionalities that Alliance Assurances required in their system, the top-level parent modules included, but are not limited to:

Master Data Repository	Reference keys for the interfaces
	Conventions
	Subscription Period
	Coding of Policyholders and Prospects
	Type of Posting
Production Module	Policyholders and Prospects Management
	New Business Handling
	Intermediary Commissions Management by Policy and by Coverage
	Automatic/Manual Pricing by Product and by Coverage
	Preparation of Standard and Regulatory Reports
Claims Module	Management of Legal Proceedings Involving Third Parties
	hird-Party Payments Management (Experts, Lawyers, …)
	Claims Privileges Management by User (Claim Type, Compensation Limit, Date, …, etc.)
	Preparation of Standard and Regulatory Reports
	Automatic Accounting Entry Generation
Reinsurance Module	Management of Facultative Reinsurance
	Processing of Cessions, Commissions, Settlements, SAP, Deposits, and Interest
	reparation of Risk Profiles

	Automatic Generation of Technical Accounts
	Automatic Accounting Entry Generation

Table 4: some high-level parent modules, from internal document of the host organization

3.1.3.2.Architectural definition (FAST and SADT):

After defining the clear goals and requirements, the new system is conceptualized and visualized to allow for easier overview and follow-up, typically done using SADT and FAST diagrams.

SADT is particularly effective at representing the "why" questions related to system functions, as it delves into the rationale behind each function, exploring the purpose and objectives of various processes within the system. While FAST is more aligned with representing the "what" behind system functionalities. It emphasizes on identifying and defining the specific functions that a system must perform, in a hierarchy following the objective → core functionality → sub-functionality.

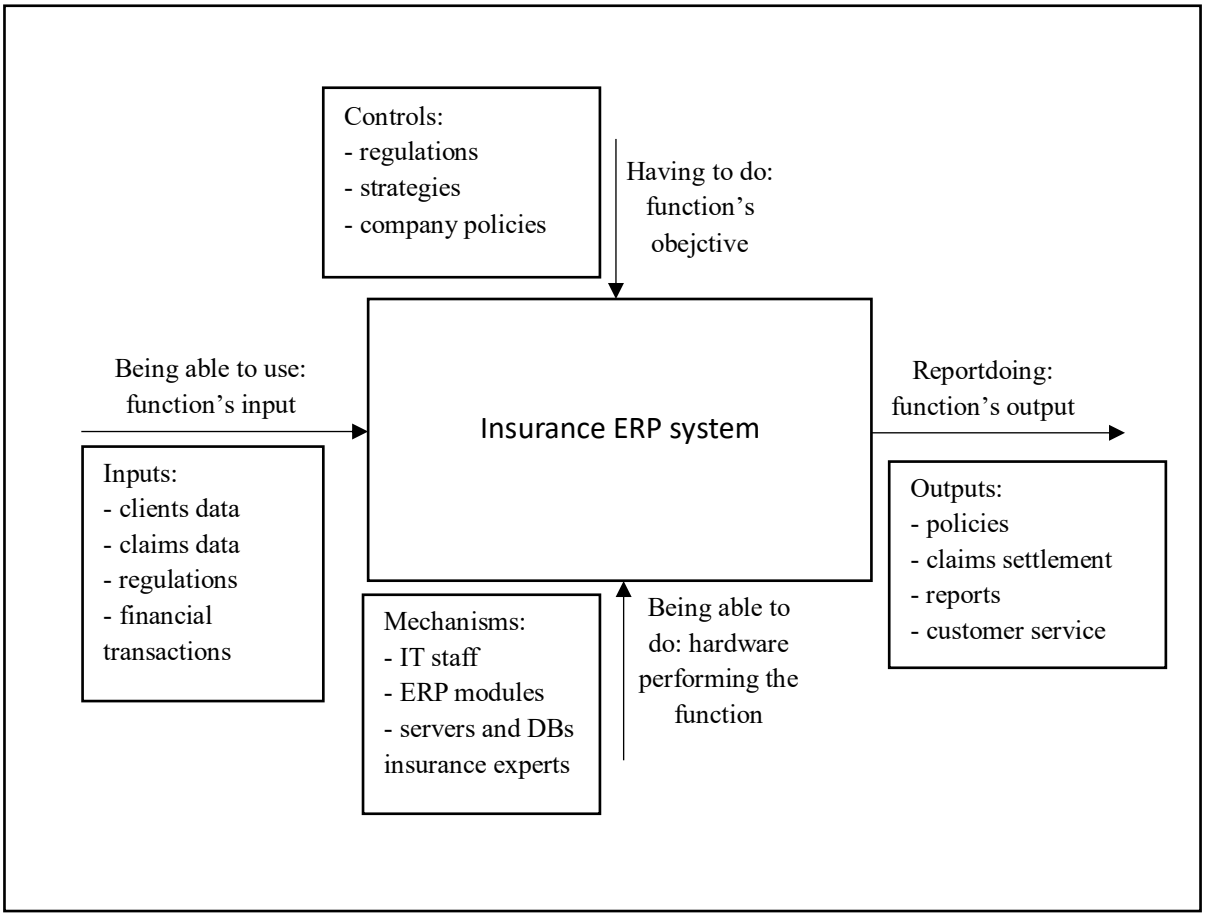


Figure 5: SADT diagram for insurance ERP system. elaborated by us

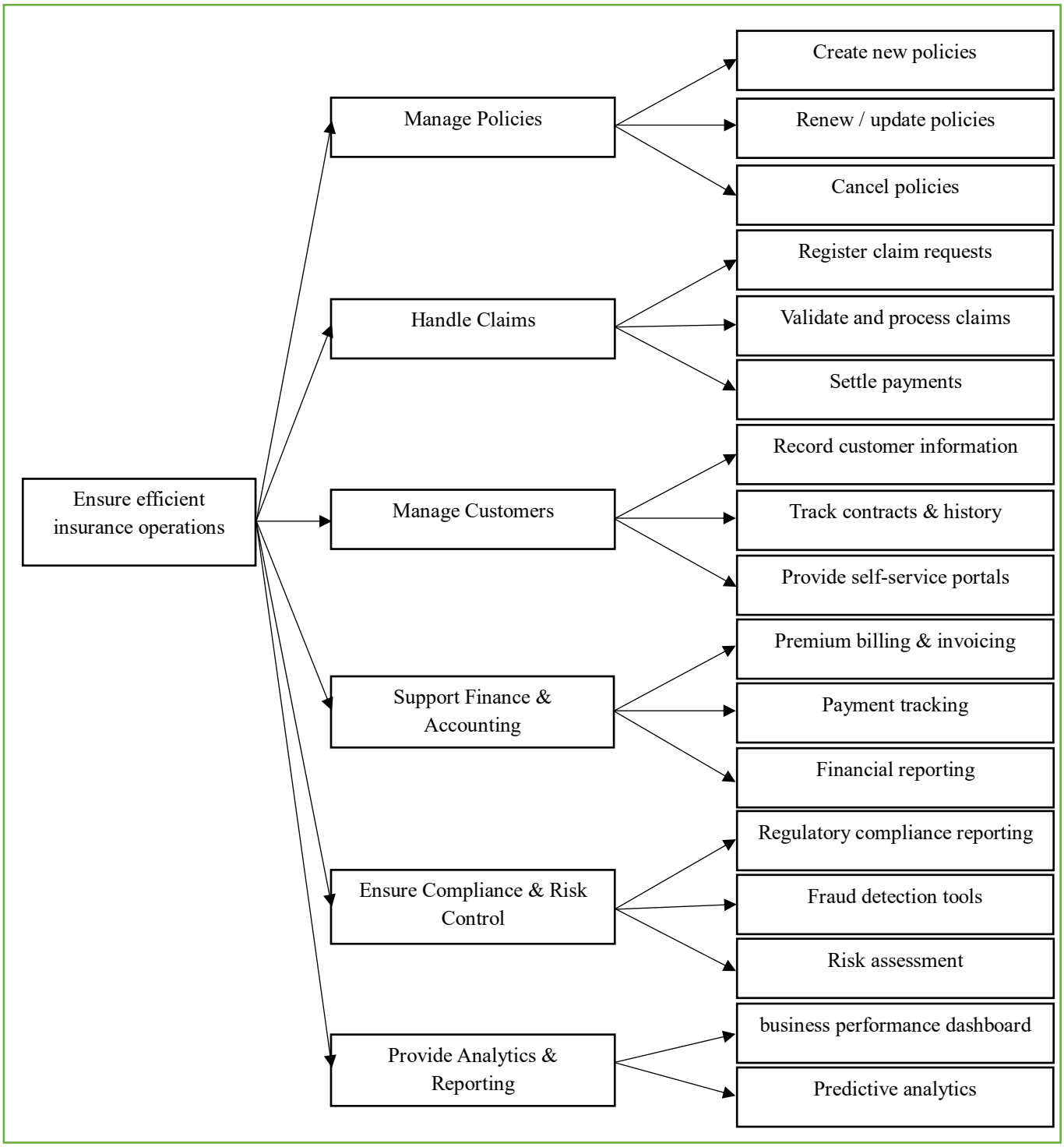


Figure 6: FAST diagram for insurance ERP system. elaborated by us

3.1.3.3.The development cycles:

The core implementation phase typically adopts an iterative development methodology, with Agile frameworks such as Scrum being widely favored for their adaptability and focus on incremental delivery. In the case of our study, a hybrid approach between the Waterfall sequential method and the Scrum agile method. The reasoning behind this approach was due to the incompatibility between the nature of the workflow between the old and the new system. The core functionality needed to retain its constant and consistent uptime, which required building the core functionality first before implementing the individual modules, to which the hybrid approach served well, highlighting a linear and clear path with high stability and predictability that facilitates building the drop-in replacement for the core functionality, and for reducing down time to mitigating it entirely in the more sensitive areas. After that the continuum of Scrum cycles allowed for greater flexibility and more frequent feedback, the preferred approach for building the modular systems with High Cohesion and Low Coupling (Larry Constantine & Glenford Myers, 1974).

. Each development cycle, or sprint, begins with sprint planning to define objectives and select backlog items for implementation. During the sprint, development teams engage in coding, continuous integration, and a suite of testing activities, including unit, integration, system, performance, and security testing, to validate the quality and functionality of each increment. Weekly meetings facilitate team coordination and rapid issue resolution, while sprint reviews and code inspections provided structured opportunities for feedback regarding the current state of the project and to what degrees are WIP functionalities so far aligning with the defined strategic goals.

3.1.3.5.Change management:

Change management is a critical process in any organization, particularly during and after the implementation of a project. During this project with Alliance Assurances, effective change management involved preparing and supporting employees as they transition to new systems, processes, or technologies. This includes clear communication about the changes being made, updates to the UI and documenting the expected new futures and the reasons behind them, as well as providing 2 types of documents: Migration guides for assisting the employees smoothly shift to the new workload and potentially modify their existing work to suit the new format, and SOP documents for assisting the employees understand the new processes step-by-step in order to replicate the process effectively within the newly provided software solutions. In addition to training sessions and

workshops are often conducted to equip employees with the necessary skills and knowledge to adapt to the new environment in a hands-on manner.

After the project is completed, change management continues to play a vital role in ensuring the long-term success of the implemented changes. This phase involved extensive testing, specifically UAT tests in order to observe and monitoring the adoption of new practices, gathering feedback from users, and making necessary adjustments to improve the system's effectiveness. Continuous support and reinforcement are essential to help employees fully integrate the changes into their daily routines. By maintaining open lines of communication and providing ongoing training, organizations can cultivate a culture of adaptability, enabling them to respond effectively to future changes and challenges. Ultimately, a well-executed change management strategy not only enhances project outcomes but also contributes to the overall resilience and agility of the organization.

3.1.4.Assessing the new system:

A comprehensive assessment of the new system includes:
- technical and performance perspective: This transition from legacy systems to modern solutions addressed critical technical challenges that hindered scalability and performance within Alliance Assurances' technical landscape. Limited scalability in the older system often lead to exponential increases in workloads, making it difficult to maintain continuous and stable uptime. Therefor by upgrading to a modern system, Alliance Assurances could achieve enhanced scalability, allowing them to accommodate growing workloads without compromising performance. Improved user interfaces (UI) in modern systems also eliminate the misrepresentation of functionalities, reducing the risk of unintentional misuse and enhancing overall productivity.

In addition to addressing performance bottlenecks, modern systems provide robust security features that mitigate vulnerabilities associated with outdated technology, since newer solutions incorporate advanced security protocols that protect sensitive information and have more robust AM and DAM protocols.

By minimizing dependency on key personnel with specialized knowledge, organizations can bridge knowledge gaps and ensure smoother operations. Collectively, these technical and performance improvements not only align with modern business needs but also position companies for sustainable growth and success in an increasingly competitive landscape.

- Organizational and operational: significant enhancements in organizational efficiency and employee morale were observed and reported. Initially, employees faced considerable resistance to change, as they were accustomed to the outdated system and hesitant to adopt new processes or technologies, this resistance initially led to disengagement and decreased productivity. However, after the implementation of the new system, the organization provided the proper support in form of extensive documentation (migrations documentations and SOP documents) the employees were more willing to engage with the improved tools and processes. As a result, employees reported increased satisfaction and productivity, as they could leverage enhanced functionalities that streamlined their workflows.

Additionally, the transition to a modern system effectively eliminated the knowledge silos that had developed due to reliance on outdated technology. Previously, only a handful of individuals possessed the expertise to operate and maintain the legacy system, risking knowledge gaps for when those key personnel could leave at any moment. With the new user-friendly system, a broader range of employees became capable of contributing to operational success, reducing dependency on specific individuals. The alignment of technology with the company's strategic goals also became more achievable, as the modern system supported evolving operational needs and facilitated collaboration across departments.

Furthermore, modern systems enhance data quality and compliance with current regulations, thereby reducing legal risks and improving decision-making processes. Collectively, improvements not only align with modern business needs but also position companies for sustainable growth and success in an increasingly competitive landscape.

- Functional Perspective: With the implementation of a modern system, Alliance Assurances saw substantial enhancements that effectively resolved the functional shortcomings of their legacy software. The new system brought critical features such as real-time data analytics, automated reporting, and intuitive user interfaces, which significantly improved employees' ability to carry out their tasks. By providing access to current information and enabling automatic report generation, the organization eliminated tedious manual processes, allowing staff to concentrate on more strategic initiatives. This shift not only boosted productivity but also increased employee engagement, as team members felt empowered with the right tools to excel in their responsibilities.

Additionally, the modern system was designed to align with current business processes and industry standards, allowing Alliance Assurances to embrace agile methodologies and customer-focused strategies more effectively. By equipping the organization with tools that promote collaboration and quick responsiveness, the new system facilitated smooth communication across various departments, dismantling the information silos that had previously hampered operational efficiency. The ability to integrate with other contemporary applications ensured a seamless flow of data, enhancing teamwork and enabling the company to adapt rapidly to evolving market conditions. Consequently, Alliance Assurances not only improved its everyday operations but also positioned itself for future innovation and growth, securing a competitive advantage in the industry. The successful rollout of the new system highlighted the critical role of technology in addressing changing business requirements and enhancing overall organizational effectiveness.

3.2.Assessing organizational fit during the project:

Alliance Assurances within this context undertook a significant project to migrate from a older legacy system to a modern software solution. This assessment evaluates the organizational fit of the new system, focusing on how well it aligns with the company's culture, processes, and strategic goals.

- The strategic positioning of the IT scope and the integrated system within Alliance Assurances: the IT function plays a central role in turning management's strategy into reality. It does so by introducing innovative processes and by designing the technical infrastructure and workflows needed, the business strategy takes precedence, guiding the development of the IT strategy, which in turn shapes the IT infrastructure. This approach ensures that technology investments are directly aligned with the organization's strategic goals, enabling the company to leverage technology as a competitive advantage. While eliminating any risks of the IT priorities shadowing the strategic goals of the company or disorienting the strategic decision making.

- Employee Engagement and Change Management: The level of employee engagement during the migration process within Alliance Assurances was consistently kept at a high level due to a comprehensive change management strategy that involved communicating the benefits of the new system to all employees, providing exhaustive documentation of different formats. While simultaneously involving staff in the decision-making process and soliciting their feedback, the company fostered a sense of ownership and reduced

resistance to change. Regular updates and open forums for discussion helped address concerns and build enthusiasm for the new system. As a result, employees felt more invested in the transition, which positively impacted their willingness to adapt to the new technology. In turn improving their productivity and building to Alliance Assurances' goals of up scaling their services and expanding horizontally and vertically.

- Process alignment: The new system was designed to align with alliance Assurances' existing business processes while also accommodating future growth and innovation. During the assessment, it was evident that the modern software provided essential functionalities that were lacking in the legacy system, such as real-time data analytics and automated reporting. This alignment allowed employees to streamline their workflows and improve efficiency. Additionally, the system's flexibility supported agile methodologies, enabling teams to respond quickly to changing market demands. The integration capabilities of the new system further enhanced collaboration across departments, breaking down silos and facilitating seamless information sharing.

From another side, many functionalities that were dependent on APIs coming from other partners posed a significant challenge, as the partner organizations have set up payment and registry gateways that were technically incompatible with the APIs the new system exposes to external user systems. And considering the partners' unwillingness to update their own systems and technologies, Alliance Assurances took a trade-off decision by keeping the old system intact and not completely shut it off after the cut-over period was over, and this was to keep some modules using the old gateways online and functional, namely primary module nodes that handle Indemnity and some parent Automatic Payment modules. This decision drove away from the original strategic goal of migrating entirely from the old system, but due to incompatibility with existing partners the old system persisted in some capacity. Even tho there were no documented of accidental mixing between the 2 systems by the employees, which reflects the quality of migration documents and SOP documents as well as all the precautions accounted for during the migration phase of project.

- Training and Support: To ensure a successful transition, Alliance Assurances prioritized training and support for its employees. A structured training program was developed, offering hands-on workshops and resources tailored to different user groups. This approach not only equipped employees with the necessary skills to navigate the new system but also

addressed any apprehensions they had about using unfamiliar technology. Ongoing support was made available through help desks and user forums, allowing employees to seek assistance as needed. And for more accessible forms of help all processes were extensively documented through the SOP documents. The emphasis on training documentation and support contributed to a smoother adoption process and minimized disruptions to daily operations.

- Impact on Organizational Performance: The migration to the new system had a significant positive impact on Alliance Assurances' overall performance. Employees reported increased productivity due to the enhanced functionalities and user-friendly interface of the modern software. The ability to access real-time data and generate automated reports improved decision-making processes and allowed for more informed strategic planning. Furthermore, the alignment of the new system with the Alliance Assurances' strategic goals facilitated innovation and adaptability, positioning Alliance Assurances to respond effectively to market changes. The successful implementation of the new system not only improved operational efficiency but also enhanced employee morale and engagement.

- Cultural compatibility: The migration to the new system at Alliance Assurances introduced significant changes in workflows, user interactions, and decision-making processes. A primary cultural consideration was the shift from a risk-averse, stability-focused mindset, which is typical of organizations reliant on legacy systems, to a more agile, innovation-driven culture encouraged by the new system's capabilities. Post-migration assessments indicate that while senior management actively championed the change, fostering a culture supportive of digital transformation, some operational-level staff exhibited resistance rooted in comfort with established routines and skepticism towards new technologies. Efforts such as targeted communication campaigns, leadership engagement, and change management workshops were instrumental in bridging this cultural gap. And ongoing reinforcement has been consistently applied over time to fully embed the adaptive, continuous improvement premise that the new system supports. The partial cultural misalignment observed highlights the importance of sustained organizational development initiatives alongside technical migration, but the larger scale threats were ultimately mitigated due to consistent support, documentation and desensitization.

- Structural alignment: Alliance Assurances' organizational structure was initially characterized by functional silos and hierarchical decision-making, posing challenges and opportunities during the migration. The new system, designed with integrated workflows necessitated a more collaborative approach to operations. Departments such as finance, operations, and customer service, which previously operated with limited interaction due to legacy system constraints, now share a unified platform enabling real-time information exchange. This shift required the creation of cross-functional teams and the redefinition of roles and responsibilities to leverage the ERP's collaborative potential as well as redefining the processes structures.

- Business integration: A critical dimension of organizational fit relates to how well the new system aligns with Alliance Assurances' business processes. The legacy system had entrenched manual workarounds and fragmented workflows, which the new system aimed to streamline through automation and standardized processes. Post-migration evaluations reveal significant improvements in process efficiency, error reduction, and cycle times, particularly in core functions such as order processing, billing, and compliance reporting. Nevertheless, some legacy processes were retained or only partially reengineered, leading to occasional mismatches between system workflows and actual practices. In particular, processes involving complex exception handling and customized client requirements required additional system customization or procedural adaptations. This partial process misalignment underscores the importance of iterative process refinement and user involvement during and after system deployment.

- Technological congruence: From a technological perspective, the new system was designed to address limitations inherent in the legacy platform, including poor scalability, lack of integration capabilities, and outdated technology stacks. The adoption of modern architectures open APIs has enhanced Alliance Assurances' IT agility and future-readiness. However, the technological transition also introduced challenges, emerging primarily with system incompatibility with 3^{RD} partnered software and integration with legacy peripheral systems not yet fully retired. While the core system aligns well with Alliance Assurances' strategic IT roadmap, gaps remain in peripheral technology harmonization, representing an area for continued investment to ensure full technological congruence.

- Human factors and user acceptance: **s**uccessful organizational fit ultimately depends on how well end users accept and adapt to the new system. Alliance Assurances implemented

comprehensive training programs, support desks, exhaustive migration/SOP documents, and user feedback mechanisms to facilitate adoption. Usage analytics post-migration showed increased user competency, reduced error rates, and growing confidence in system functionalities. Nonetheless, pockets of resistance remain, particularly among long-tenured employees accustomed to the legacy system's interfaces and workflows. Some users reported initial productivity dips due to learning curves and changes in routine but even those has been steadily accommodating to the new system. Even if at a slower rate but it is off-set by the commitment to the grand goals designated by the business strategy.

3.3.Outcomes and insights: evaluating the ERP integration:

The implementation of the Enterprise Resource Planning (ERP) system has had a profound impact on the organization, fundamentally transforming its operations and positioning it for future success.

From a technical perspective, the ERP system has streamlined processes, enhanced data accuracy, and improved real-time reporting capabilities. This technological advancement has not only increased operational efficiency but has also facilitated better decision-making across all levels of the organization. The integration of various functions into a single platform has eliminated data silos, enabling seamless communication and collaboration among departments, which is essential for a cohesive operational framework.

Organizationally, the ERP implementation has unlocked significant potential for growth and innovation. By aligning the system with the company's strategic goals, the organization has been able to enhance its responsiveness to market changes and customer needs. The ERP system has empowered employees with the tools and information necessary to perform their roles more effectively, leading to increased productivity and job satisfaction. This cultural shift towards a more data-driven and collaborative environment reflects the organization's current state of success and flourishing, as it adapts to the dynamic business landscape with agility and confidence.

Strategically, the ERP project has positioned the organization to capitalize on new opportunities and drive competitive advantage. The alignment of the ERP system with Alliance Assurances' strategic objectives has facilitated a clear focus on customer-centric initiatives, allowing the organization to enhance service delivery and foster stronger relationships with clients. The success of the ERP implementation can be attributed, in large part, to the high rates of organizational fit achieved throughout the project. By

actively involving all aspects and actors within the organization, the company ensured that the system met the specific needs of all its users, thereby minimizing resistance to change and maximizing engagement.

In conclusion, the ERP implementation has not only transformed the organization's technical capabilities but has also reinforced its strategic direction and operational effectiveness. The emphasis on achieving organizational fit has been instrumental in the project's success, enabling the company to harness the full potential of the ERP system. As a result, the organization is well-positioned to thrive in an increasingly competitive environment, leveraging its enhanced capabilities to drive sustained growth and success in the future.

Conclusion

This study has provided an in-depth examination of Alliance Assurances' migration process from a legacy information system to a modern, custom-developed ERP solution tailored to its insurance sector operations. Through a detailed exploration of the technical transition, project management methodologies, organizational fit, and post implementation impacts, the research offers valuable insights into the multifaceted challenges and success factors inherent in complex IT system transformations.

The migration journey began with a careful supplier selection process, emphasizing alignment with Alliance Assurances' industry-specific requirements and technological modernization goals. The move from an outdated Delphi-based system to a contemporary technology stack, addressed critical limitations in scalability, integration, and maintainability. This technical evolution not only improved system performance and reliability but also enhanced security and compliance capabilities essential to the insurance domain.

Central to the project's success was the adoption of a hybrid project management approach, blending traditional structured planning with Agile practices. This enabled iterative development and adaptive responses to emerging requirements and risks. The emphasis on robust communication, risk mitigation, and change management facilitated user adoption and minimized resistance.

The organizational fit assessment revealed that while significant strides were made in aligning culture, structure, processes, technology, and human factors with the new ERP system, residual misalignments persisted. These included entrenched hierarchical structures limiting cross-functional collaboration, partial process adaptation, and ongoing challenges system renewal within 3rd party partners and clients. The findings underscore that successful technology implementation extends beyond technical deployment to encompass comprehensive organizational transformation.

In conclusion, this research contributes to the broader understanding of ERP system migrations by emphasizing the interplay between technology, project management, and organizational dynamics. It confirms that a carefully planned and executed migration, supported by agile methodologies and continuous organizational alignment, is critical to realizing the full potential of enterprise-wide digital transformation initiatives. Future research could extend this work by examining long-term organizational impacts, exploring the role of emerging technologies such as artificial intelligence and cloud computing in

ERP evolution, and developing frameworks to better integrate organizational change management with technical implementation. Such studies would further enrich the knowledge base and provide practical guidance for organizations embarking on similar transformational journeys.

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Annexe

1.Interview guide:

General overview:

- How would you describe the importance of IS system within this organization (Alliance Assurance) ?
- Describe the position of the position of the IS relative to Alliance Assurances' strategy

Pre-implementation:

- What were the technologies used in the old system's tech stack ?
- What roles did the old system cover ?
- What problems did the old system impose on the work flow ?

Transition phase:

- What criteria were the most important in choosing your vendor organization ?
- did B-Link solutions satisfy all the prerequisites ?
- what were the chosen modules for implementation in the new system ?
- what were the deliverable documents exchanged with the vendor throughout the project ?
- was the approach classic, agile or hybrid ? what agile method was used ?
- what modules were delayed or replaced ? why ?
- what were the desired effect from a functional, operational, organizational, technical and performance perspective ?
- what were the encountered obstacles ?

Post-implementation:

- was the older system completely replaced by the new system or are there some functionalities left intact ? why ?
- if the older system is not entirely cutoff, are there any direct connections between the 2 systems ?
- what were the experienced effects of the new system from a functional, operational, organizational, technical and performance perspective ?
- did these effects match the desired effects ?
- how would you describe the overall impact of the new on Alliance Assurances' performance and its capacity to achieve its strategic goals ?