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A Case Study on Countermeasures for Managerial Challenges in Cloud ERP Establishment

Abstract:

Research Question: How do managers address the challenges of implementing a cloud ERP system in the case company? **Motivation:** Numerous studies, including systematic literature reviews and empirical research (Abd Elmonem, Nasr, & Geith, 2016; Awan et al., 2021; Vukovic et al., 2025), have identified various challenges in establishing cloud ERP systems. These challenges include change management, legal and compliance issues, integration, data security, privacy, the need for skilled employees, adjustments to business processes, management efficiency, cloud vendor selection, and migration to cloud management. Many of these challenges significantly burden organizations and should be addressed by different levels of management. However, there are very few studies that explicitly focus on strategies to overcome these challenges, particularly those affecting managerial positions within organizations. **Idea:** The primary objective of this research is to understand and articulate how management encounters resistance concerning the four categories of managerial challenges identified in our previous study (Vukovic et al., 2025) during the establishment of cloud ERP systems. **Data:** Qualitative data were collected through open interviews with key managers in the organization located in the Republic of Serbia (fluid and water management industry) and by reviewing organizational documents relevant to the research topic. The data collection took place between November 2024 and March 2025. **Tools:** Qualitative research was conducted in the form of a single case study, using a deliberately selected organizational sample to address the research question. The collected data were subsequently analysed using thematic analysis. **Findings:** The study identified 14 countermeasures and grouped them according to four categories of challenges involved in establishing cloud systems. For the first category, business process adjustment, the countermeasures include pre-project planning, risk mitigation, adopting a hybrid implementation approach, and providing people support. For the second category, change management, the countermeasures are social activities, transparency, recognition and gratitude, and the selection of key users. For the third category, management efficiency, the countermeasures consist of maintaining on-site presence, improving coordination, and participating in governing bodies. For the fourth category, integration, data security, and privacy, the countermeasures are the use of technical tools, cooperation with vendors, and conducting external audits. **Contribution:** This study offers a real-world example of how a mid-sized entity within a large multinational company addresses the managerial challenges associated with the establishment of cloud ERP systems.

Keywords: cloud ERP systems, establishment, challenges, management, countermeasures

JEL Classification: M15

1. Introduction

The need to optimize business processes, reduce costs and resource use, enhance productivity and efficiency, and boost organizational competitiveness is ongoing and essential for survival and growth (Kornfeld et al., 2024). To meet these needs and facilitate the digitization and integration of internal business processes and data, organizations have used ERP systems for decades. Before their adoption, organizations operated with fragmented software applications supported by separate databases, faced limited integration capabilities, data redundancy issues, a lack of a unified view of business operations, as well as restricted

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analytical and reporting capabilities. These systems have evolved from the on-premises ERP solutions of the 1990s to ERP 2.0 systems based on cloud computing technology (Bhadra, Kumar Sanyal, & Biswas, 2019). Currently, cloud computing is the dominant technology for delivering IT resources and services via the Internet (Zhong & Erik Rohde, 2014), leading to the continuous replacement of traditional on-premises ERP systems with cloud ERP systems (Usman, Ahmad, & Zakariya, 2016). Unlike on-premises ERP systems, which were primarily used by large companies, cloud ERP systems have become accessible to small and medium-sized enterprises due to simpler implementation and lower costs. With a structure organized into modules covering logistical business processes (procurement, production, sales, and delivery), finance (financial accounting and controlling), human resource management, customer service and many others, complemented by AI-driven capabilities, it represents an all-in-one solution for modern enterprises (Guntupalli, & Kuchimanchi, 2024; Nendrambaka, 2024). Cloud ERP systems offer numerous benefits, including lower upfront and operating costs, rapid implementation, scalability, enhanced focus on core competencies, improved accessibility, mobility, and usability, easier integration with cloud services, better system availability and disaster recovery, cost transparency, sales automation, security standards, and free trials (Abd Elmonem et al., 2016). Other advantages include future-oriented technology, streamlined and automated work processes, continuous updates and upgrades, time savings, and increased availability (Hustad, Olsen, Hovik Jorgensen, & Uri Sorheller, 2020). Additional benefits are real-time information flow, pay-as-you-go pricing, collaboration capabilities, and perceived system quality (Overdal, Haddara, & Langseth, 2023).

However, despite these advantages, companies also face a range of disadvantages and challenges when implementing cloud ERP systems. These challenges differ in certain ways from those associated with on-premises ERP systems. Various studies—ranging from systematic literature reviews to empirical research—have identified challenges in the implementation of cloud ERP systems (Abd Elmonem et al., 2016; Awan et al., 2021; Haddara, Gothesen, & Langseth, 2021; Vukovic et al., 2025; and others). The list of identified challenges is extensive. Some are technical in nature, relating to customization, estimation, functionality, and performance of cloud ERP systems (Alsharari, Al-Shboul, & Alteneiji, 2020; Awan et al., 2021; Bhadra et al., 2019; Gupta et al., 2017; Erasmus & Daneva, 2013; Lewandowski, Salako, & Garcia-Perez, 2013; Zadeh, Akinyemi, Jeyaraj, & Zolbanin, 2018). In contrast, other challenges are managerial, relating to business process adjustment, change management, management efficiency and integration (with data security and privacy) as presented by Vukovic et al. (2025).

This study focuses on managerial challenges and seeks to understand how they are addressed in real-world settings. Accordingly, the goal of this paper is to articulate countermeasures for overcoming managerial challenges in the establishment of cloud ERP systems. Based on the defined research objective, the following research question was formulated:

RQ1: How do managers in the case company address the challenges associated with implementing a cloud ERP system?

The structure of this paper is as follows. After the introduction, Section 2 presents the research background, including challenges related to company management during the implementation of cloud ERP systems. Section 3 describes the research methodology, while Section 4 outlines the study's findings. Section 5 examines study limitations and validity threats, and Section 6 discusses the conclusions and directions for future research.

2. Related Work and Research Background

This study builds upon our previous work, in which we identified 18 categories of challenges commonly encountered during the establishment of a cloud ERP system within a company. Of these 18 categories, four are primarily managerial: business process adjustment, change management, management efficiency, and seamless integration, including data security and privacy (Vukovic et al., 2025). The characteristics of these managerial challenges are discussed in the following sections.

Cloud ERP simplifies business processes through standardization and enables improved collaboration for companies operating across multiple locations (Marinho, Prakash, Garg, Savaglio, & Bawa, 2021). A successful implementation of a cloud ERP system has a positive impact on business process redesign and overall organizational performance (Chu & Nguyen, 2022). However, deploying cloud ERP across multiple departments in large organizations, or when expanding into new geographic markets or new lines of business, can present significant challenges. Cloud ERP systems can be difficult to adapt to such changes

and often lack sufficient flexibility (Gupta et al., 2017). Additionally, they bring about significant organizational changes in business processes, work roles and responsibilities, reporting structures, and various other activities (Seethamraju, 2014). One of the reasons for unsuccessful cloud ERP implementation in small and medium-sized enterprises is poor communication. Effective communication plays a crucial role in adapting business processes during cloud ERP implementation, and management expectations at every level should be clearly communicated to cloud ERP vendors (Venkatraman & Fahd, 2016). Trust in suppliers also poses a challenge when organizations adopt cloud ERP systems (Awan et al., 2021). The author Seethamraju (2014) suggests that if customers do not fully trust the supplier or if the supplier is not approachable and helpful, companies are likely to encounter difficulties. It is considered important for suppliers to be actively involved from the initial planning phase through to the final go-live phase.

The authors Venkatraman and Fahd (2016) argue that effective change management is essential for cloud ERP implementation, given the need to reengineer business processes. The authors Bjelland and Haddara (2018) found that users often resist changes when it comes to cloud ERP system updates. Their study also shows that, although most users accept the need to change their work processes, they often feel frustrated by these changes. User resistance is therefore a significant challenge to the adoption of cloud ERP systems by client organizations. When an organization transitions to a cloud solution, internal resistance from staff can become a major obstacle (Awan et al., 2021).

Without a well-structured change management process, small and medium-sized businesses are unlikely to successfully implement cloud ERP. Employees in these organizations resist cloud ERP implementation for various reasons, including increased workloads, late involvement of end users, inadequate communication, lack of commitment and support from top management and responsible staff, and a general lack of motivation and adaptability (Venkatraman & Fahd, 2016). Contrary to the expectation that client resistance would mainly concern issues of security, privacy, and availability, the authors Rabaya and Graffi (2019) discovered that resistance is more often due to doubt, fear of the unknown, and scepticism about whether providers will fulfil their promises and meet the agreed service levels specified in the SLA.

Many common organizational barriers, such as a lack of top management support, poor cross-functional communication, ineffective business process re-engineering, and inadequate change management, have a significant impact on cloud ERP adoption (Peng & Gala, 2014). Additional challenges, such as a lack of organizational governance and changes within the project team during implementation, were identified by the authors Tongsuksai, Mathrani, and Weerasinghe (2021).

Top management support plays a critical role in the adoption of innovations within organizations and is a positive predictor of cloud technology adoption. Given the various risks associated with cloud ERP, strong support from top management serves as an important incentive for adoption. Technical support and skills training are also key incentives, further emphasizing that vendor support is crucial for successful cloud ERP implementation (Marinho et al., 2021). Insufficient involvement from top management and poor cross-functional communication can demotivate employees and hinder effective cross-functional cooperation during cloud ERP adoption (Peng & Gala, 2014).

It is highly likely that an ERP system will not meet all the business needs of client companies, especially large multinational organizations. Consequently, it is common for these companies to use additional software that must be integrated with the cloud ERP system. However, because ERP systems are highly complex and often lack compatibility, integrating cloud ERP with other applications presents numerous technical challenges and can incur significant costs. Additional expenses may also arise from the re-migration of cloud ERP systems (Peng & Gala, 2014).

Furthermore, the management and monitoring of critical data resources, such as information about suppliers and customers, may not be under the complete control of a company using cloud ERP. This lack of control can lead to the loss or theft of information, as the service provider has access to all company data stored on their platform. Organizations that are accustomed to managing their own resources may struggle to relinquish control of confidential information to a cloud provider. Theoretically, sensitive business data could be leaked, resulting in financial losses and a reduction in business insight (Prihandono et al., 2024). For large companies, the loss of sensitive information can be especially critical, potentially resulting in damages worth several million dollars. A cloud provider must demonstrate to its customers that its platform is secure and complies with industry standards and government-mandated legal requirements (Gupta et al., 2017).

3. Research Design

This paper aims to identify and articulate recommendations for overcoming managerial challenges in the establishment of cloud ERP systems. In line with the defined research objective, the authors determined that a qualitative research methodology would be most suitable for gathering in-depth data from relevant organizational roles within their natural environment. Qualitative research is particularly effective for understanding subjects within their social and cultural contexts. For this reason, the empirical research was conducted using the single case study method (Yin, 2009; Ristic, 2016) on a purposefully selected organization. This company was chosen because it possesses a wealth of valuable information pertinent to the research objectives and can provide meaningful insights into the research question. The primary criterion for selecting the organization was that it had recently undergone the process of establishing a cloud ERP system.

The case company is a global leader in both engineered and standardized fluid connectivity and management solutions, as well as water management solutions. It is established over a century ago and nowadays operates worldwide, serving diverse industries such as water supply, automotive, aerospace, construction, and more. Headquartered in Europe and listed on a regulated market, the company maintains an international presence, with manufacturing facilities and sales offices across Europe, North America, Central and South America, as well as the Asia-Pacific region. In Serbia, the company operates under a local name and maintains a production facility in one of the country's largest cities. To standardize and streamline its operations, the company utilizes the cloud-based Microsoft Dynamics 365 Finance & Operations ERP system, which supports management of finances and operations on a global scale.

The data collection instruments used in this study included open-ended interviews and a review of organizational documentation relevant to the research topic. Open-ended interviews enable in-depth elicitation of the participants' opinion about the topic at hand. Ristic (2016), thus, is seen as suitable method for this study. The interview protocol was developed based on the recommendations of the author Ristic (2016) and consisted of five main questions or topics, each accompanied by a series of sub-questions designed to further prompt interviewee responses. Four of the questions targeted the groups of challenges identified in our previous study (Vukovic et al., 2025), while the final question aimed to uncover the management approaches considered most important for successfully establishing a cloud ERP system. Prior to conducting the interviews, the interview scheme was tested by the ERP project manager to identify and resolve any potential ambiguities and to ensure that the identified challenges were within the managerial domain. Based on the feedback received, the interview questions were revised and refined accordingly.

In total, five managers were interviewed between November 2024 and March 2025. Each mmanager had different role during the establishment of the cloud ERP system within the organization. Their roles covered IT management, project management, quality management and executive oversight, and thus ensured relevant expertise and comprehensive insight into managerial challenges. Such a profile of interviewees strengthens the credibility of the qualitative findings by reflecting diverse managerial perspectives within the organization. Details of the interviewees are summarized in Table 1.

Table 1: Demographic data of the interviewees

Role in the Company / Questions about respondents	I1 Project quality manager	I2 IT manager	I3 Entity CEO	I4 project manager	I5 IT regional director
Level of education	Higher education	Higher education	Higher education	Higher education	Higher education
Type of education	Humanistic sciences	Business informatics	Technical / engineering	Technical / engineering	Technical / engineering
Work experience (years)	30	10	22	10	30
Work with ERP (years)	12	8	0	7	15

The documentation review focused on documents such as the D365 Quality Gates and the Go-Live Readiness Tracker, which regulate specific activities involved in the establishment of the cloud ERP system. These documents also include best practices for mitigating risks associated with cloud ERP challenges. The D365 Quality Gates document is designed to monitor the fulfilment of quality criteria for key activities that must be completed before the rollout of the cloud ERP system. It is structured as a checklist, covering all critical milestones in the preparation phase of the ERP system implementation project. The Go-Live Readiness Tracker is used to assess the organization's preparedness to transition to the new cloud ERP system and is employed throughout the establishment process. It comprises a series of criteria in the form of questions requiring unambiguous answers, as well as key performance indicators (KPIs) related to both the project itself and the operational performance of the organization.

The collected data were analysed thematically according to the guidelines provided by the authors Mackey and Gass (2012). The thematic analysis was conducted in three steps. First, three authors independently identified and coded all practices, heuristics, approaches, methods, and general strategies that management employs to address the challenges of establishing a cloud ERP system. In the second step, the codes generated by all three authors were consolidated, and their meanings were harmonized. In the third step, based on the agreed-upon codes, common countermeasures were generalized for each of the four groups of challenges. Additionally, during the third step, the approaches that managers regarded as most important were identified.

4. Study Findings

The findings presented in this section are based on insights provided by managers who participated in the interviews and were directly involved in the cloud ERP establishment process. Their firsthand experience with organizational, technical, and managerial aspects of the project adds depth and credibility to the interpretation of the findings. The insights derived from these managers provide a credible foundation for drawing the study's overall findings.

The study investigated countermeasures for four categories of managerial challenges in cloud ERP establishment: 1. business process adjustment, 2. change management, 3. management efficiency, and 4. integration, data security, and privacy using thematic analysis method (Mackey & Gass, 2012). For each category, specific countermeasures were identified. Findings from the analysis are illustrated in Figure 1 as a mind map. This map features four ovals and fourteen rectangles, where the ovals represent categories of challenges, and the rectangles depict the identified countermeasures. Each countermeasure in the figure is generalized from the groups of codes, while the lines connect these countermeasures to the challenges they aim to address.
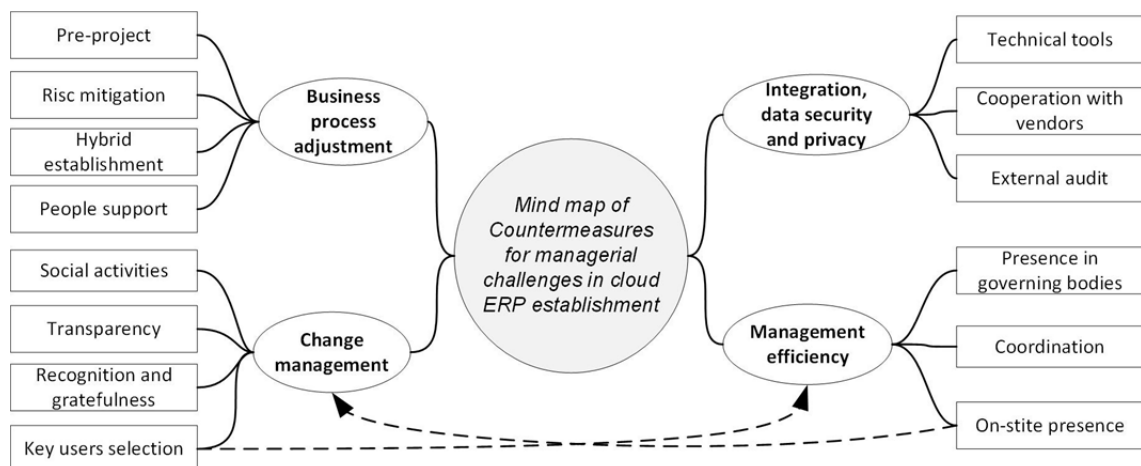

Figure 1: Mind map of countermeasures for cloud ERP establishment challenges

4.1 The business process adjustment challenge

Several factors must be taken into account when adjusting business processes within an organization, including the high demands for process orientation in cloud ERP services, the complexity of business operations, the need for business process reengineering to align with ERP systems, and the presence of redundant processes. (Vukovic et al., 2025).

Pre-project
After analysing the problems and reasons for the previous unsuccessful implementation of the cloud ERP system, it was concluded that the "learning by doing" approach and the lack of a strategic framework should not be repeated. Therefore, a standardized cloud ERP system implementation strategy was chosen. According to one of the interviewees "The development of the strategy was preceded by a workshop with top management, during which we applied what is known as rollout factors, meaning that the same standardized ERP system would be rolled out across all entities. This marked a turning point in the business process adjustment across all company entities." The template encompasses all business processes relevant to the company's operations. To create the template, a preliminary project was established, involving representatives from various business units—including factories and distribution centres, both union and non-union, and different branches—who contributed their specific requirements. The preliminary project lasted six months and, in addition to developing the template, included a test rollout of the cloud ERP system. This test phase involved both system acceptance testing and user acceptance testing, which successfully concluded the template creation process. The main objective of this strategy was to achieve standardized business processes throughout the organization. Rollouts were then executed in phases according to a rollout plan. Each phase was preceded by preparatory activities, such as cleaning the database from the old system, organizing master data and transactions, and presenting the new system's features to end users.

Risk mitigation
To ensure business stability and avoid potential market disruptions, rollouts were never conducted simultaneously in two large factories during the same wave. Additionally, to further mitigate risks during the cloud ERP system implementation go-live phase, the stock of finished products was increased. This measure was taken because system performance was expected to reach only up to 50% of maximum capacity during the first two days of the rollout, and up to 80% during the following two weeks. In the view of the IT Regional Director, "The best practice for risk mitigation, is to quantify everything and show it in numbers. Instead of relying on a subjective feeling about whether something is working or not, it is necessary to use measurable data to gain a clearer insight. This includes setting business KPIs, not just project-related ones, to understand all operational dimensions."

Hybrid establishment approach
The Agile methodology was employed to manage the implementation of the cloud ERP system. Sprints were organized on a two-week basis, and daily coordination took place at both the local team and analyst team levels through regular meetings, which is a form of classic micro-management. In some cases, when necessary, tasks were further broken down into hourly segments to ensure everything remained under control.

People support
Top management initiated the entire project and was fully engaged in monitoring its implementation throughout. At the local (entity) level, the entire management team, including the general director, participated actively in the project's regular processes and activities. A crucial element of the strategy was to secure the involvement of key users in the project. To ensure their maximum commitment, according to IT manager "Each key user was assigned a backfill person who took over a significant portion of their daily responsibilities, allowing key users to dedicate about 80% of their working time to the project." which is essential for the alignment of business processes.

4.2 The change management challenge

Resistance to change, frustration due to changes, and vendor's authority over changes are factors that need to be considered in change management (Vukovic et. al, 2025).

Social activities
To encourage greater employee engagement and increase motivation during the cloud ERP system implementation, various social events were organized, such as joint dinners, outings, and milestone celebrations. Additionally, members of the implementation team, as well as other employees involved in the

process, participated in team-building sessions, the costs of which were covered by the company. From the Quality manager's perspective, "not only monetary compensation is very important, but also recognition and team spirit."

Transparency
Motivating key users was achieved by providing them with relevant information from the project quality manager, IT manager, and project manager. This information helped them understand the significant benefits of a standardized system, including easier collaboration with team members, reduced local specifics, and improved support due to the presence of a global support team. Furthermore, the implementation of the new cloud ERP system would modernize their daily activities, creating a more efficient and enjoyable work environment. To underscore the importance of the cloud ERP system, the entire management team, including the local general manager, was actively involved in regular project updates. Engaging with team members, understanding their challenges, and addressing at least one major issue demonstrates that management is attentive and committed to finding solutions. Additionally, through frequent one-on-one conversations, the significance of each team member's contribution to the project was emphasized. A change management team was formed to better understand and address team and user concerns. Comprehensive information about the project was shared with them, including updates on the current status and planned actions.

Recognition and gratefulness
To motivate employees, the company provided cash bonuses either during or at the end of projects to cover overtime hours for employees. This approach was a tangible way to express gratitude for the effort they invested. Additionally, we focused on fostering a strong team spirit by offering support and demonstrating that we value and respect their contributions.

Key users selection
In a project such as the implementation of a cloud ERP system, uncertainty is a common factor that can create discomfort among employees and team members. Therefore, those in managerial positions need to understand everyone involved in the project, thus increasing honesty and transparency. This understanding can only be achieved through individual conversations and a commitment to addressing concerns. Such efforts will foster greater understanding, honesty, and transparency within the team. In some cases, it is important to recognize individuals who are proactive and ready to take prompt action to complete their assigned tasks. These individuals do not require additional motivation, as the challenge itself is inherently motivating for them. The key user selection countermeasure, also plays a crucial role in enhancing management efficiency challenge.

4.3 The management efficiency challenge

Lack of governance within the organization, changes in the project team during implementation, insufficient involvement of top management, and inadequate vendor support are some significant issues associated with this challenge (Vukovic et al., 2025).

On-site presence
The management team's presence and involvement were evaluated very positively, highlighting the project's importance to the company. This engagement made all team members feel supported and provided them with an immediate opportunity to express their thoughts, which helped alleviate their concerns. In particular, as Quality manager stated "the support from the local director positively influenced the entire management team, including the project manager responsible for overseeing the project. This support is crucial for the project's success." The regular weekly meetings attended by the local director offered a realistic insight into the project's situation and status, clearly outlining potential risks and consequences without embellishment. The onsite presence countermeasure not only improves management efficiency but also has a significant impact on the change management challenge.

Coordination
In a cloud ERP system implementation project, it is crucial to clearly define the responsibilities of various managerial roles. While the primary responsibility lies with local management, it extends to the project manager, who must effectively keep the project on track. Close collaboration between the project manager and local management is essential for success. The project manager's ability to foster team spirit within the local team is vital; however, this effort must be supported by local management. If the implementation of the cloud ERP system is not viewed as a collective effort, a significant opportunity for the company could

become a substantial challenge. Therefore, it is imperative that top management fully supports the project manager and the project's managing director.

Presence in governing bodies
When top management became part of the board of directors, the pressure on them to update the project status was significantly reduced. By attending the meetings of the board of directors, they became better informed. Although they are part of the program board, their frequent presence at the board of directors' meetings provided them with closer insight into the project's progress. They were also able to see directly the effort put in by the project team, as the lower-level program board includes regional directors who deliver filtered reports. Additionally, establishing a flat organizational structure is important. Reducing the number of meetings and ensuring transparency among all relevant stakeholders in communication is key, as it sends a clear message that there is nothing to hide.

4.4 The integration, data security and privacy challenge

The integration challenge arises from several factors: low compatibility of ERP systems with other platforms, varying information system infrastructures used by different vendors, and a lack of information compatibility between departments. Additionally, since data security is managed by the vendors, full assurance of safety cannot be guaranteed. Furthermore, concerns about data privacy are exacerbated by inadequate data protection practices (Vukovic et al., 2025).

Technical tools
The integration of the cloud ERP system with existing systems is crucial for the successful implementation of the project. Therefore, planning for the integration of peripheral systems begins during the preparatory phase. In this particular case, according to quality manager "there were 17 interfaces to manage, presenting a significant challenge. Integrating various systems into the corporate security policy follows a strictly defined process, and the technical team needs to prioritize this task." Key questions must be addressed during the planning and preparation stages, including: Which systems need to be integrated? What do they involve? What data will be exchanged? Are these data subject to privacy regulations? What security mechanisms are in place? For the integration, one of the available Talend[1] integration platforms was utilized, which proved to be a valuable resource. It facilitated seamless integration, effectively acting as a messaging system between different systems**.**

Cooperation with vendors
The timely involvement of all software suppliers in the integration process is crucial for developing the interface within a specified timeframe. Therefore, special contracts were established with the suppliers to cover any additional costs incurred during the integration of their systems with the cloud ERP system.

External audit
The security of a cloud ERP system is one of the critical attributes in the case company. To ensure the security, thorough audits have been conducted by both internal and external auditors. According to IT regional director, "utilizing an external audit and adopting their recommendations adds an extra layer of security since it provides independent and objective assessment of security practise."

5. Study Limitations and Validity Threats

This study has at least two limitations that are inherent to the single case study design. The first limitation is that the interviewees were drawn from a single branch of a multinational company operating in Serbia. For this reason, the transferability of the proposed mind map and countermeasures to other branches, or similar manufacturing companies can be risky and should consider at least social and cultural differences. The second limitation stems from the sample size. The data was collected from five managers and company specific documents. Although seen as representative sample size on a national branch level, larger sample size, e.g., drawn from other branches or companies, may provide additional insights thus finetuning the derived mind map and countermeasures.

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[1] https://www.talend.com/

To mitigate these limitations and ensure validity of the study findings, three techniques, proposed by Maxwell (2012), where employed. The first technique is **intensive, long-term involvement** which allows for more accurate and comprehensive data. One co-author of this manuscript, who is an employee of the case company, drew on their in-depth knowledge of the company's processes to point out the relevant sources of data and provide initial insights into the observed phenomenon. The concept of **rich data** is the second technique and involves utilizing information from various sources, which stems from long-term involvement. Rich data allowed the analysis and cross-checks of various company-specific documentation and observation notes alongside interview transcripts. The third technique is the **respondent validation** and it refers to the process of seeking confirmation from study participants about the data provided by individuals to minimize the risk of misinterpretation. The involvement of one co-author within the case company, along with occasional informal conversations among the study authors and management, allowed for the collection of feedback on respondents' data and perspectives.

Conclusions and Future Research

This study's aim was to articulate countermeasures for cloud ERP establishment challenges. To this end, five interviews with managers and case company documentation was analysed. The findings from the analysis revealed fourteen countermeasures related to four groups of managerial challenges.

Two countermeasures, namely, the selection of key users and onsite presence, should be emphasized since, compared to other countermeasures, they can counter two groups of challenges. The findings also revealed that countermeasures are strongly biased toward approaches that are social or human in nature. Countermeasures, such as social activities, recognition and gratefulness, collaboration, people support, onsite presence of management, all indicate on the relevance of supportive work culture that is based on principles of equality, fairness and transparency. Technical tools for documenting, tracking and measuring progress remain necessary and important, but the focus seems to be on social and human aspects within the project team.

Finaly, from a theoretical perspective, the findings of this study can be related to the ERP life-cycle framework introduced in our previous study (Vukovic et al., 2025), which itself builds upon the model by Markus and Tanis (2000). The identified countermeasures extend the framework by relating countermeasures with challenge groups, establishment roles, and stages. The framework, hence, illustrates how managerial actions operationalize this framework in practice and ensures governance and alignment across the project stages.

The findings presented can assist companies similar to the case company in improving their business through a cloud ERP system in the following ways: (1) the countermeasures outlined serve as a practical example of how the company addresses establishment challenges, and (2) by utilizing the concepts found in the mind map, companies can analyse their own establishment processes to identify areas that need improvement.

Future research can be built upon the findings and further investigate countermeasures, particularly those capable of addressing multiple challenges simultaneously, that is, challenges spanning different groups. Identifying and clarifying countermeasures that apply to various challenge groups can significantly facilitate the successful establishment of a cloud ERP system. Furthermore, it would be beneficial to consult related scientific fields to better understand how to establish and preserve stimulating working culture which seems to be a significant contributor to successful cloud ERP establishment.

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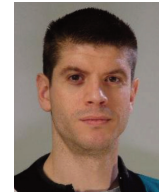
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