

Critical success factors of ERP implementation: A literature review

Facteurs critiques de succès de la mise en œuvre d'un ERP : Une revue de la littérature

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Abstract

In nowadays' competitive business environment, ERP systems have become an important strategic tool. This study provides an overview of current research on ERP systems. Its aim is to identify the main advantages, disadvantages and critical success factors for implementation of ERP systems discussed in the relevant literature.

In order to do so, numerous journal papers and conference proceedings have been designated. We started by selecting the papers that analyzes the ERP implementation process and followed by making a selection of papers that discuss the factors on which companies can rely to guarantee the success of the implementation project of the said system.

The results show that while some organizations might face difficulties and challenges in implementing ERP systems, many others are already taking advantage and profiting from the benefits the system offers to the firm. The ERP system is conducive to the smooth flow of general functional information, practice across the organization. It also improves supply chain efficiency and reduces lead times. However, companies cannot gain the full benefits of the ERP package without top management support, accurate and precise data, proper business plan, strategy and vision, business process re-engineering, effective project management, user involvement and training, active communication and change management.

Keywords: ERP system, CSF, Implementation, Success, failure

JEL Classification: M15, G17, G30

Paper type: Theoretical Research

1. Introduction

The widespread use of information technology (IT) tools have increased the reliance and the dependence on machines to process all business transactions and operations. In fact, organizations (large corporations, SMEs, and governments) are still willing to invest massively in ERP systems. The international enterprise resource planning (ERP) market size is expected to increase from USD 42.14 billion in 2020 to USD 67.7 billion in 2028, at an average annual growth rate (CAGR) of 6.4% during 2022-2028 (Market Watch 2022). ERP stands for “Enterprise Resource Planning”. In its basic definition, an ERP is an integrated software package consisting of a set of functional modules (production, sales, human resources, finance, etc.) developed or integrated by vendors to suit the company’s requirements and needs (SOUSA and COLLADO, 2000). In other words, it’s a software that stores, organizes and retrieves information on demand from a common database and provides solutions for enterprise resource planning systems ((EMAM et al, 2013).

If implemented properly and successfully, the system promises to facilitate the integration of all functional information flows across the organization to a single package with a common and unique database. Thus, it permits easy and instantaneous access to inventory information, product or customer data and historical information (SHEHAB et al, 2004).

Although companies spend millions on both the software and the implementation process, there is clear evidence that most companies face numerous difficulties and challenges, especially during the phase of implementation (SHANKS, 2000). According to a study of ERP implementation success conducted by the research firm Mint Jutras in 2018 on more than 315 North American manufacturers and distributors, focusing on the success of their ERP implementations in terms of schedule, cost and return on investment (ROI), it was found that 67% of the implementations are considered as successful or very successful, while 26% went over budget by 10% and only 1 of the 315 companies considered the implementation a failure.

This paper is structured as follows. First, the research method is presented, as well as, the research aim, the inclusion criteria and a brief synthesis. Next, a brief literature review introducing ERP systems, their implementation, the reason of their adoption, their benefits and drawbacks is explained. Subsequently, the critical success factors of ERP systems implementation are presented and detailed. Finally, the conclusions and the implications for further research are outlined.

2. Research Methodology

For the purpose of developing the scope of knowledge in the field of IT tools, a wide literature review was conducted. As mentioned at the beginning, the main purpose of this study is to identify the prime critical success factors for the implementation of ERP systems discussed in the literature. Several journal papers and conference proceedings have been selected. We began with the selection of research papers that discuss the process of implementing an ERP system. Following, in order to identify the main CSF of ERP implementation we have been most curious about studies that have specified the factors on which companies can rely to guarantee the success of the implementation project of the said system.

The research papers included in this study must respect two criteria: 1) only focus on ERP implementation, and 2) they must have specifically used the term ‘CSFs’ in the title, abstract, keywords or content.

2.1 Research aim

This research paper aims to provide an overview of the current literature on enterprise resource planning systems, by studying their main benefits and drawbacks and identifying the main critical success factors for implementing these systems according to the relevant literature.

2.2 Keywords used

Enterprise resource planning, Information technology, Critical success factors, Implementation process, software, success, failure.

2.3 Inclusion criteria

Qualified scientific articles (journal papers and conference proceedings), in English, on the identification and analysis of critical success factors of ERP Implementation.

2.4 Synthesis and added value

The analysis of ERP system as a concept, the reasons of its implementation, benefits and disadvantages are presented. Moreover, the 10 most important critical success factors (CSFs) of ERP systems' implementations are well documented and explained, but this research has not yet been concrete until there's a case study. Therefore, the contribution of this work is to provide identification and analysis of 10 CSFs for research and professional practice through a literature review

3. ERP systems: an overview

3.1. Enterprise resource planning system -Core concepts

Enterprise resource planning system is a comprehensive system that tries to integrate all functions and departments in an organization (centralized and decentralized) using a single computer system (Bavarsad et al, 2013). These systems promote collaboration between teams, teamwork, processes expertise and business knowledge to help transfer authority and responsibility from management to the front lines (Hammer, 1999). Furthermore, ERP systems offer single system solutions that integrate processes across the business. Such applications allow users to interact within a single interface, share information, and enable cross-functional collaboration (Investopedia, 2022).

The evolution towards ERP systems occurred in the late 1970s and early 1980s, and it was driven by the need for a stronger integration between the functions of a firm throughout that period. One could argue that software engineers recognized the promise of data integration very early—long before the push towards flatter organizational structures that occurred in the early 1990s (Jacobs and Weston, 2007).

Since their inception in the 1970s, these systems have gone through various development cycles until they were established as the backbone of most large organizations in various industries around the world (Rabaa'i, 2009). The dependence and reliance on ERP systems has increased significantly since the early 1990s, and the purchase and implementation of ERP systems remains one of the fastest growing segments of the information technology (IT) sector (Luo and Strong, 2004).

3.2. ERP Promises and Reasons of Implementation

The business environment is undergoing fundamental and permanent change. Today's firms are faced with the challenges of intense competition, expanding markets and rising customer

expectations. This has led to increasing the pressure on organizations to reduce costs across the supply chain, shorten lead times, reduce inventory levels, expand product selection, provide more reliable delivery dates and better customer service and improve quality. From the moment of implementation, ERP systems promise a set of tangible and intangible benefits for the firm. The tangible advantages post-implementation are generally related to the direct reduction of costs and consequently the improvement of the financial performance of organizations (Shin, 2006; Nicolaou et al., 2004; Benchmarking Partners, 1998; Peterson et al., 2001; Mabert et al., 2001; Hayes et al., 2001; Hunton et al., 2003; Kouki, 2015). Furthermore, these IT systems hold the promise of perfecting and improving business processes and decreasing costs (Nah et al. 2001; Beheshti 2006), as these systems facilitate communication and coordination, centralize administrative activities, improve ability to deploy new information system functionality, and reduce information system maintenance costs (Rabaa'i, 2009). Other intangible benefits of ERP systems focus on topics such as workforce reduction, improved decision making, workflow optimization, information availability and reliability, and improved customer service (Murphy, 2002).

3.3. Drawbacks of ERP Systems

The benefits of a properly implemented ERP system are enormous, but the costs of a poorly implemented system are high (LOH et al, 2004). The costs refer to tangible and intangible losses due to failed implementations.

In fact, ERP users have reported some disadvantages when integrating their organization's processes and principals into specific software solutions. If a firm does not align the business requirements and technical aspects of an ERP system, conflicts can arise between system logic and business logic (Kumar, 2003). This can be translated into huge changes in the way in which firms function and huge changes in job sheets. Change management, including training on the new system, is a significant cost for organizations considering or implementing ERP systems (Trimi et al, 2016).

Furthermore, in case there are any defects in the services and products provided, this might cause a significant switching cost as well as the cost of integrating ERP systems with other software products (Fosser et al, 2008).

Moreover, today companies function in a value chain, or business webs (Tapscott et, 2000). The network of the firms that are involved in said business web, where intervene participants add value to the final product or service. As originally designed, ERP systems were made as very closed systems, focusing entirely on maximizing internal operating efficiency and performance (Trimi et al, 2016).

Another risk associated with ERP implementation is the vendor's environment. This means that if a supplier abandons a product, its users are stuck. They face the dilemma of falling behind competitors or spending millions on new systems, often before implementing them (Trimi et al, 2016).

4. Critical factors for successful ERP Implementation

Critical success factors are defined as "*The areas where things must go right for the business to flourish*" (Digman, 1990: 247). They are aimed at fulfilling the corporate mission and achieving objectives centered on financial, growth, and positioning issues (FREUND, 1988) In this research paper, a set of the main critical success factors affecting ERP implementation are discussed. Each factor is explained in the following sub-sections.

4.1. Implementation strategy and team

Organizations must understand the different strategies for implementing an ERP system and be able to choose the best strategy to meet the requirements of the organization (EMAM et al, 2013).

The management decisions required with ERP system concern how the system is to be implemented. For instance, a standard version can be installed at first, and extra ERP modules can then be added progressively once the system is operating and the end-users are used to it. While, an organization can adopt a much more ambitious strategy, which is to implement a system that provides all the modules that the organization requires in a single effort (HOLLAND et al, 1999).

Implementation teams should gather top-notch people who are carefully selected for their competence, past accomplishments, reputation, and flexibility. The team should have a combination of external consultants and internal staff so that the internal staff can develop the necessary technical skills for design and implementation, and the consultants can take charge of developing the initial, detailed project strategy or overall master plan for the entire implementation project, assigning responsibilities for different activities and determining deadlines. The team also makes sure that all necessary resources will be available as needed (SUMNER, 1999; UMBLE et al, 2003).

Project teams, particularly project leaders with the insightful competences and knowledge of the domain can improve the knowledge base of organizations, which also can support the firms when they come across challenges and difficulties during the implementation process (HUANG et al, 2021).

4.2. Business plan and Vision

A good and clear business plan and vision outlining the future strategy and benefits, resources, costs, risks and timelines is needed to guide the direction of the project throughout the ERP lifecycle (BUCKHOUT et al ,1999; WEE, 2000). Moreover, it is important to determine the scope and goals of the project in advance by the implementation team and then stick to it (SHANKS and Graeme,2000).

In J K File industry case, KHAPARDE et al have explained that a clear understanding of strategic objectives and goals is done. The very reason of implementing ERP system in this industry is -To reduce the operation process cycle time, to minimize the idle time of operation, to increase the efficiency of the processes/system, and for the ease of accessibility for integrated information on one platform.

Furthermore, the project of ERP implementation requires that key people all over the organization create a clear, compelling vision of how the firm should operate in order to satisfy customers, empower employees, and facilitate suppliers for the next three to five years. Objectives, expectations and deliverables must also be clearly defined. Finally, organizations must carefully define the reasons for implementing an ERP system and what key business needs the system is designed to meet (UMBLE et al, 2003).

4.3. User's Involvement

User involvement in IT development is becoming more important because this can lead to better engineered products from the perspective of the end-user (Karwowski et al, 2003).

In point of fact, involving user has a positive impact on ERP implementation success (Liang Zhang et al, 2003), it is, then, important to be sensitive to user resistance (SUMNER, 1999).

4.4. User's training

A successful implementation of ERP system requires knowledge of specific details, creative vision of improvement, ability to relate business needs and software features, and dedication to spend months to years, on a team under intense scrutiny and pressure (AL-MASHARI et al, 2006).

In other words, education and training are two pillars of effective and successful implementation of ERP system in any kind of organization. In the case studied by KHAPARDE et al in their paper “*ERP: Implementation Procedures and Critical Barriers*”, education and training are provided to the users about the ERP system implementation prior to implementing the ERP system.

Furthermore, these implementation projects require a serious mass of training to allow people to solve problems within the framework of the system. If the users are not able to fully comprehend how a system works, they will, eventually, create their own processes using those parts of the ERP they are able to manipulate. The full benefits of ERP cannot be realized until end users are using the new system properly. To make end user training successful, the training should start early, preferably well before the implementation begin. It has been suggested that reserving 10–15% of the total ERP implementation budget for training will give an organization an 80% chance of implementation success (UMBLE et al, 2003).

Thus, Education and training has a positive impact on ERP implementation success (Liang Zhang, 2003), it is, then, very important to make a commitment to training and re-skilling technical professionals (SUMNER, 1999).

4.5. Effective Project management

Successful ERP implementations require that the company engage in effective project management. This consist of a clear definition of goals, development of both an action plan and a resource plan, and careful tracking of project progress (UMBLE et al, 2003).

In most cases, project management involves multiple processes, including initiation, planning, execution, and control. Various tools and techniques of project management methods are accessible to help firms overcome barriers to ERP implementation (HUANG et al, 2021).

Effective project management is, then, vital and has a positive impact on ERP implementation success (ROSARIO, 2000; Liang Zhang et al, 2003). An individual or group of people should be given responsibility to drive a certain aspect of success in project management (ROSARIO, 2000).

4.6. Communication

Effective communication is critical to the success of ERP implementation. Expectations and goals at every level need to be communicated. Management of communication is important throughout the organization (LOH et al, 2004). In fact, communication should be of two kinds: 'inwards' the project team and 'outwards' to the whole firm. This means not only sharing information between the project team but also communicating to the whole organization the results and the goals in each implementation stage. The communication effort must be done often during the implementation phase (PASTOR-COLLADO et al, 2000).

To sum up, effective communication can develop employees' knowledge and can empower teams. Transparent and precise communication which consists of telling everyone in

advance what is happening (Scope, Objectives and activities of the project) is required to reduce ambiguity in the understanding of employees during the implementation (SUMNER, 1999; HUANG et al, 2021).

While a lot of researchers have proven that effective communication is an important CSF for ERP implementation, SARKER et al, 2003 have explained that open and honest communication, and balanced and empowered teams, while probably helpful) are not necessary conditions for success in all phases of an ERP implementation.

4.7. Top management's Support

Successful implementations need strong leadership, commitment, and engagement by top management. Because top level input is crucial to analyzing and rethinking existing business processes, the implementation project should have a senior management planning committee that is dedicated to enterprise integration, understands the ERP system, fully supports the costs, and champions the project (UMBLE et al, 2003).

Top management support is definitely one of the most important critical success factors for ERP implementation (HOLLAND et al, 1999; SUMNER, 1999 SHANKS and Graeme, 2000; Liang Zhang et al, 2003; SARKER et al, 2003).

In fact, in their paper “*Putting the enterprise into the enterprise system*“, the authors suggested that many business leaders see installing IT systems primarily as a technological challenge. They transfer this responsibility to their IT department. Because of IT systems’ far-reaching business impact, especially the risk that the technology itself could challenge or come in the way of the company's global strategy. Only top management is qualified to act as an intermediary between technological needs and business needs (DAVENPORT and Thomas H, 1998).

4.8. Organizational Culture

ERP implementations can be a trigger to radical changes in corporate culture. If people are not properly prepared for the forthcoming changes, then denial, rejection, resistance and chaos will be expected consequences of the changes created by the implementation. However, if proper change management methods are used, the company should be prepared to embrace the opportunities provided by the new system. The organization must be flexible enough to take full advantage of these opportunities (UMBLE et al, 2003).

The response and reaction of organizations to the transition to the ERP system is also critical to a successful implementation. Companies can face significant challenges from their employees when migrating to ERP because they know little about the benefits of cloud ERP or are reluctant to change work habits or business processes. When migrating from traditional business processes to an ERP system, there is often resistance in organizations to ERP solutions. (HUANG et al, 2021)

In fact, the process of implementing an ERP system may face organizational challenges rather than technological ones, for example, top management involvement and commitment and poor cross-functional communication (ABD ELMONEM et al, 2016). A groundbreaking project that is instructed bossily by top management without cultural readiness and proper change management is likely to lead to troubled and unsuccessful ERP projects (MOTWANI et al, 2002). In other words, in addition to having important strategic implications, ERP systems also have a direct, and often paradoxical, impact on a company's organization and culture (DAVENPORT and Thomas H, 1998).

4.9. Data Accuracy

Data accuracy refers to error-free records that can be used as a reliable source of information. It is absolutely essential for an ERP system to function properly. Because of the integrated nature of ERP, if someone enters the incorrect data, the mistake can have a negative domino effect throughout the entire organization. Therefore, informing users on the importance of data accuracy should be a top priority in every ERP implementation project (UMBLE et al, 2003).

Liang Zhang et al suggested in their paper “*Critical success factors of enterprise resource planning systems implementation success in China*” that Data accuracy has a positive impact on ERP implementation success.

4.10. Business Process Re-engineering

According to OXFORD Dictionary, to re-engineer is to redesign and restructure. In more concrete terms, it refers to redesigning business processes to “fit” and match the ERP package, rather than trying to modify the software to “fit” the firm’s current business processes (SUMNER, 1999).

In fact, implementing an ERP system involves re-engineering the existing business processes to the best business process standard. ERP systems are built on best practices that are followed in the industry. All the processes in a company must adapt to the ERP (BINGI et al, 1999).

Furthermore, companies should be able to look at their actual business structure and processes with the existing software, as well as then looking at the processes provided by the ERP. There are process modelling tools that can help organizations match and align the current business processes with the standard ERP package. The processes can be revised and redesigned, for example, unwanted activities and sub-processes can be deleted and others can be added from different reference processes. Therefore, business processes can be customized and personalized to a certain level (HOLLAND et al, 1999).

Thus, business process reengineering (BPR) has a biggest positive impact on ERP implementation. It is, in fact, critical to the project’s success (SUMNER, 1999; Liang Zhang et al, 2003). However, BPR has a negative impact on User Satisfaction (Liang Zhang et al, 2003).

5. Conclusion and Future Research

Based on a review of the ERP system literature, 10 critical success factors for ERP implementation have been selected. Top management commitment and support, communication as well as change management are the most widely cited factors of ERP implementation success. In order to guarantee a successful ERP implementation; effective project management strategy and action plan should be in place. Another very critical factor is business process re-engineering. Moreover, user training and involvement should be taken in consideration and highly supported before and during the implementation process. Since ERP systems contain and integrate data provided by the organization, it is very important that the data bases are accurate and precise. Other critical factors include vision and business plan, key people and implementation team selection.

Since it is important for any organization to make calculated and rational decisions, this research paper is dedicated to analyze the factors that could make an ERP implementation project a success and avoid failure and budget waste. Moreover, this article will undoubtedly serve as a theoretical basis for researchers wishing to deepen their research in the field of information systems and particularly integrated systems.

However, we cannot deny that the results of this paper need to be tested through an empirical study so that they are usable for researchers and professionals.

References

- (1). ABD ELMONEM, Mohamed A., NASR, Eman S., et GEITH, Mervat H. *Benefits and challenges of cloud ERP systems—A systematic literature review*. Future Computing and Informatics Journal, 2016, vol. 1, no 1-2, p. 1-9.
- (2). AL-MASHARI, Majed, GHANI, Shehzad K., et AL-RASHID, Waiel. *A study of the critical success factors of ERP implementation in developing countries*. International Journal of Internet and Enterprise Management, 2006, vol. 4, no 1, p. 68-95.
- (3). BEHESHTI, Hooshang M. *What managers should know about ERP/ERP II*. Management Research News, 2006, vol. 29, no 4, p. 184-193.
- (4). Benchmarking Partners. 1998. « *ERP's Second Wave: Maximizing the Value of ERP-Enabled Processes* ». Cambridge, MA
- (5). BIDGOLI, Hossein. *Encyclopedia of Information Systems*: EJ. Academic Press, 2003.
- (6). BINGI, Prasad, SHARMA, Maneesh K., et GODLA, Jayanth K. *Critical issues affecting an ERP implementation*. Inf. Syst. Manag., 1999, vol. 16, no 3, p. 7-14.
- (7). BUCKHOUT, S., FREY, E. and NEMEC, J., JR, 1999, *Making ERP succeed: turning fear into promise*. IEEE Engineering Management Review, 116–123.
- (8). Carr, J. (2023, January 3). ERP Implementation Survey Shows Real Facts About ERP. Ultra Consultants. <https://ultraconsultants.com/erp-software-blog/erp-implementation-survey/>
- (9). DAVENPORT, Thomas H. *Putting the enterprise into the enterprise system*. Harvard business review, 1998, vol. 76, no 4.
- (10). DIGMAN, Lester A. *Strategic management: Concepts, decisions, cases*. Business Publications, 1990.
- (11). EMAM, Ahmed Z. *Critical success factors model for business intelligent over ERP cloud*. In: 2013 International Conference on IT Convergence and Security (ICITCS). IEEE, 2013. p. 1-5.
- (12). Enterprise Resource Planning (ERP): Meaning, Components, and Examples. (2022, September 11). Investopedia. <https://www.investopedia.com/terms/e/erp.asp>
- (13). FOSSER, Erik, LEISTER, Ole, MOE, Carl Erik, et al. *Organizations and vanilla software: What do we know about ERP systems and competitive advantage?* 2008.
- (14). FREUND, York P. *Critical success factors*. Planning Review, 1988.
- (15). Hammer, M. 1999. "Up the ERP evolution", Information Week (February 8): 186-187
- (16). Hayes, D.C., Hunton, J.E., & Reck, J.L. (2001). « *Market reaction to ERP implementation announcements* ». Journal of information systems, 15(3), 3-18
- (17). HOLLAND, Christoper P., LIGHT, Ben, et GIBSON, Nicola. *A critical success factors model for enterprise resource planning implementation*. In: ECIS 1999: 7th European Conference on Information Systems. 1999. p. 273-287.
- (18). HUANG, Qian, RAHIM, Mahbubur, FOSTER, Susan, et al. *Critical Success Factors Affecting Implementation of Cloud ERP Systems: A Systematic Literature Review with Future Research Possibilities*. In: Proceedings of the 54th Hawaii International Conference on System Sciences. 2021. p. 4683.

- (19). HUNTON, James E., LIPPINCOTT, Barbara, et RECK, Jacqueline L. « *Enterprise resource planning systems: comparing firm performance of adopters and nonadopters* ». International Journal of Accounting information systems, 2003, vol. 4, no 3, p. 165-184.
- (20). JACOBS, F. Robert, et al. *Enterprise resource planning (ERP)—A brief history*. Journal of operations management, 2007, vol. 25, no 2, p. 357-363.
- (21). K. E. Murphy and S. J. Simon, “*Intangible benefits valuation in ERP projects*,” Information Systems Journal, vol. 12, no. 4, pp. 301-320, 2002.
- (22). KHAPARDE, Vijay M. et KHOT, S. M. *ERP: Implementation Procedures and Critical Barriers*.
- (23). KOUKI, Ahmed. « *Joint impact of ERP systems and non-financial performance indicators on corporate financial performance: Evidence from French listed companies* ». Management Science Letters, 2015, vol. 5, no 1, p. 1-10.
- (24). Kumar, V., Maheshwari, B. and Kumar, U. (2003). *An Investigation of Critical Management Issues in ERP Implementation: Emperical Evidence from Canadian Organizations*. Technovation, Vol. 23, Issue 10, pp. 793-807.
- (25). Liang Zhang et al, "Critical success factors of enterprise resource planning systems implementation success in China" 2003.
- (26). LOH, Tee Chiat et KOH, S. C. L. *Critical elements for a successful enterprise resource planning implementation in small-and medium-sized enterprises*. International journal of production research, 2004, vol. 42, no 17, p. 3433-3455.
- (27). Luo, W., and Strong, D. M. (2004). “*A framework for evaluating ERP implementation choices*”. IEEE Transactions on Engineering Management, (15 :3), pp. 322-333.
- (28). Mabert, V.A., A. Soni and M.A. Venkataramanan. 2001. « *Enterprise resource planning: Common myths versus evolving reality* », Business Horizons (May-June): 69-76
- (29). MarketWatch (2022, May 24, Consulted May 28, 2022). https://www.marketwatch.com/press-release/enterprise-resource-planning-erp-market-is-estimated-to-grow-by-us-67700-million-at-cagr-64-by-forecast-period-2028-2022-05-24?mod=search_headline
- (30). MOTWANI, Jaideep, MIRCHANDANI, Dinesh, MADAN, Manu, et al. *Successful implementation of ERP projects: evidence from two case studies*. International Journal of Production Economics, 2002, vol. 75, no 1-2, p. 83-96.
- (31). Nah, F.F-H., Lau, J.L-S. and Kuang, J. (2001), “*Critical factors for successful implementation of enterprise systems*”, Business Process Management Journal, (7), p. 285
- (32). NICOLAOU, Andreas I. « *Firm performance effects in relation to the implementation and use of enterprise resource planning systems* ». Journal of information systems, 2004, vol. 18, no 2, p. 79-105
- (33). PASTOR-COLLADO, José Esteves-Sousa-Joan et SALGADO, Jordi Girona. *Towards the unification of critical success factors for ERP implementations*. In: Annual Business Information Technology (BIT) 2000 Conference, Manchester, UK. 2000.
- (34). Peterson, W.J., L. Gelman and D.P. Cooke. 2001. « *ERP Trends* », New York, NY: The Conference Board; Report 1292-01-RR.

- (35). RABAAI, Ahmad. *Identifying critical success factors of ERP Systems at the higher education sector*. In: Proceedings of the Third International Symposium on Innovation in Information and Communication Technology. British Computer Society, 2009. p. 133-147.
- (36). ROSARIO, J. G., 2000, *On the leading edge: critical success factors in ERP implementation projects*. Business World, 17 May, pp. 15–29
- (37). SARKER, Suprateek et LEE, Allen S. *Using a case study to test the role of three key social enablers in ERP implementation*. Information & Management, 2003, vol. 40, no 8, p. 813-829.
- (38). SHANKS, Graeme. *A model of ERP project implementation*. Journal of information Technology, 2000, vol. 15, no 4, p. 289-303.
- (39). SHEHAB, E. M., SHARP, M. W., SUPRAMANIAM, L., et al. *Enterprise resource planning: An integrative review*. Business process management journal, 2004.
- (40). SHIN, Namchul. « *The impact of information technology on the financial performance of diversified firms* ». Decision Support Systems, 2006, vol. 41, no 4, p. 698-707.
- (41). SUMNER, Mary. *Critical success factors in enterprise-wide information management systems projects*. In: Proceedings of the 1999 ACM SIGCPR conference on Computer personnel research. 1999. p. 297-303.
- (42). Tapscott, D., Ticoll, D. and Lowy, A. (2000), *Digital Capital: Harnessing the Power of Business Webs*, Harvard Business School Press, Cambridge, MA
- (43). TRIMI, Silvana, LEE, Sang M., OLSON, David L., et al. *Alternative means to implement ERP: internal and ASP*. Industrial Management & Data Systems, 2005.
- (44). UMBLE, Elisabeth J., HAFT, Ronald R., et UMBLE, M. Michael. *Enterprise resource planning: Implementation procedures and critical success factors*. European journal of operational research, 2003, vol. 146, no 2, p. 241-257.
- (45). WEE, S., 2000, *Juggling toward ERP success: keep key success factors high*. ERP News, February