Sys Rev Pharm 2020; 11(1):1206-1212
A multifaceted review journal in the field of pharmacy

What are Success Factors of SAP in Malaysia?

[1]S.M. Ferdous Azam, [1]Sakinahmohdshukri, [1]MohdShukri Ab Yajid

[1]Management and Science University
*Corresponding author:drferdous@msu.edu.my

ABSTRACT
Over the years, SAP has grown and evolved into the world's leading customer / server business solutions provider for which it is so well known today. Within this paper during the implementation stage we will concentrate on the problem faced by selected organization in Malaysia and you will know that they face nearly the same problems. The study mainly established links between factors influencing the implementations of SAP, while in order to analyze the impacts as well as relationships, Project formulation, Implementation development and deployment are the elected independent variables in this study on the dependent variable SAP implementation success. Data has been selected in this study while emphasizing variables of this study, where regression and correlation analysis has been performed in this study. Result shows significance towards the factors that duly influencing the dependent variable of this study, whereas; significant relationship is also ascertained.

Keywords: sap, solutions, organization, Malaysia, project formulations, deployment.

Correspondence:
S.M. Ferdous Azam
Management and Science University
Corresponding author:drferdous@msu.edu.my

INTRODUCTION

The adoption of any system will have an impact on an organization in term of strategy, processes, business flow and workflow. An organization needs to evaluate if the system they plan to implement will meet their requirements and the costs involved represent a reasonable investment for them. SAP stands for Systems, Applications and Products in Data Processing; the SAP ERP system is a new system widely used in the world today and has become the market leader in the commercial software business(Soliman, Janz, Puschmann, & Alt, 2005; Nguyen et al., 2019; Nikhashemi et al., 2013; Pathiratne et al., 2018; Seneviratne et al., 2019; Tarofder et al., 2019). The program combines into one program business functions such as planning / control, inventory, accounting, production, and purchasing. ERP benefits allow for faster global integration (Automatic bridging of currency exchange rates, language, and culture barriers). Implementation of the company-wide update just needs to be completed once. Provides real-time details, minimizing the risk of ERP failure failures and drawbacks Bound into vendor partnership through contract and system-specific management processes-a contract can keep vendor companies until it expires; switching vendors may be unprofitable due to high switching costs. Due to the high investment costs, only large organization can afford to take advantage of this technology; this results in small and medium businesses falling behind in technology advances. Inflexibility-vendor packages may not exactly fit a company's business model and any customization can be very expensive.

The reasons why companies implement SAP ERP are due to the integration of business processes in systems and it improves the competitive market position of a company (Al-Fawaz, Eldabi, & Kamal, 2011).It will also replace outdated existing and inefficient systems (Java-samples.com, 2013) In Malaysia, as a result of rapid economic growth, local organizations have been given the opportunity to expand their business outside of Malaysia to regions such as Asia and Europe. This opportunity increases the requirement to integrate all business units; increasing the need to obtain a world renowned and used system like SAP that has standard functions which can facilitate the economic collection and processing of information from local or overseas business partnerships. SAP is one of the complete systems being used globally in the world, allowing organizations to customize the system to fit into their own business environment. As the operation of the SAP system is standard an organization that has implemented the system benefits from the standards built up throughout the organization; this enables users to share ideas and solutions to any problems they have encountered with any module (Tenkasi& Chesmore, 2003).SAP enhances an organizations' productivity through effective work flow that requires data to only be entered once, allowing data to then be used and forwarded to all the business units within the organization. Implementing SAP therefore gives the advantage of controlling the whole operation through one standard system.

Despite the many advantages that the SAP system provides there are still problems that have to be faced by an organization. There is clear evidence that many ERP implementation projects are not completed on time and within budget (Rajan&Baral, 2015) and reports of total failure to implement ERP (Yahya, Hasibuan, &Torong, 2018) are available. Any of these concerns may be due to inadequate calculation of costs and time, and shifts in project scope (Chien&Tsaur, 2007).There are many stand-alone software systems available to handle accounting, sales, purchasing, manufacturing and production processes; however it is not possible to link them to one to another, as a result flow of information and reports to management are inconsistent. SAP as one of the latest systems available integrates one business unit to another business unit providing a fully integrated business real-time system, allowing organization to control the entire management and operational process. Global companies such as Microsoft, IBM and Nestle are among the many high profile organizations that have implemented SAP across the world (Somers & Nelson, 2001).

SYABAS was an agency expressly established as an implementing mechanism for privatization. Universiti Malaya, or UM, Malaysia's oldest university, is located on a

campus of 750 acres (309 hectares) in the southwest of Malaysia's capital Kuala Lumpur. The firm's primary owners are DRB-HICOM. It undertakes modifications on the Proton range of cars through one of its wholly-owned subsidiaries, Automotive Conversion Engineering, converting the Perdana and Waja models into an executive and a limousine model. This research will specifically focus on the problems faced by Syarikat Bekalan Air Selangor (SYABAS), University of Malaya and EON Berhad (EdaranOtomotifNasional) during the implementation of the SAP system and why some organizations are not willing to use the system. The result of this research may give benefit to an organization that is planning to implement the SAP system. The Malaysian Government has been supportive in developing technology infrastructure; all organizations should therefore be encouraged to take advantage of this opportunity. This research will gain an understanding of the problems faced by SYABAS, EON Berhad and University Malaya when they implemented the SAP system; identify as well as evaluating factors that affect SAP implementation within a Malaysia organization. The research will also assist understanding of the reasons why some company's do not implement SAP into their operation (Sternad, Gradisar, & Bobek, 2011).

LITERATURE REVIEW

The information in this section was obtained from journals, articles and the internet; the information gained related to the problems experienced when organizations implement SAP ERP and the reluctance of organizations to implement the system. SAP ERP is a system that integrates all business unit functions within the organization. As Malaysia was one of Asia's fastest growing economies SAP was introduced here in 1992. According to the SAP website; due to the consistent growth in clients, Malaysia currently has over 130 staff in its office in Kuala Lumpur and represents, provides and helps over 500 clients. In the early 1990s, the term "Enterprise Resource Planning" was introduced as a software solution that incorporates information and business processes to allow departmental information sharing within an enterprise (Amoako-Gyampah& Salam, 2004). This module helps the consumer to track their inventory flows in real time, handles workforce changes, business resources – minimize operating costs; improve operational transparency; and strengthen compliance with corporate, legal and regulatory requirements. Adoption of the SAP ERP system would centralize the operations of the company into one framework and allow oversight over the business divisions within the organization. ERP adoption in organizations can be influenced by many factors (Huang, Hung, Chen, & Ku, 2004).

These factors include change management (Sedera, Gable, & Chan, 2003), lack of top management support (Shanks et al., 2000), business requirement gap (Liu & Seddon, 2009), user involvement (Abdullah, Rahman, Harun, Alashwal, & Beksin, 2010) and vendor support (Françoise, Bourgault, & Pellerin, 2009) which may result in ERP implementation failure.SAP ERP has a website that allows users to share ideas and knowledge about the system on a global basis. Users can also find many solutions to any problem they have, whether in term of functionality or a technical issue. SAP also provides professional consultants all over the world to support users.

The general consensus is that there would be a need for systemic reform when people in a company want to adopt ERP packages (Tarhini, Ammar, Tarhini&Masa'deh, 2015). In the context of the reasons for adoption of SAP ERP, it can be argued that people in organizations that want to introduce ERP packages with the specific intention to force change, or use the ERP packages as a 'excuse' for change (Jarrar, Al-Mudimigh, &Zairi, 2000).Implementing SAP often needs improvements in an organization's infrastructure and business processes, which needs top management approval for the changes. Top management engagement and support are noted as a vital factor, having a positive effect on successful adoption of ERP (van Slooten& Yap, 1999), transition is difficult to accomplish and so some organizations struggle to adopt SAP ERP. Most ERP implementations have failed due to inadequate preparation, management and lack of support for business managers (Themistocleous et al., 2005).The failure rate of implementing the SAP ERP system is disappointing (Hasibuan&Dantes, 2012). User engagement during the description of organizational knowledge needs process may decrease user resistance to implementing the ERP system (Somers & Nelson, 2001).

User involvement / participation can result in device use (Al-Mashari&Zairi, 2000) and user satisfaction (Žabjek, Kovačič, &Stemberger, 2009). User satisfaction is a vital factor for successful implementation of the ERP program. The performance of the ERP program is calculated in terms of customer satisfaction (Nanayakkara, Perera, &Perera, 2013). The effectiveness of the implementation of the SAP ERP also depends on the choice of provider. Indeed an important factor is seller assistance that better supports the implementation process (Aarabi, Saman, Wong, Azadnia, &Zakuan, 2012).Help to suppliers can be helpful in the ERP program implementation process. This provides support for equipment, technical assistance, emergency repairs, upgrades, and special training for users (McGinnis & Huang, 2007). The vendor's previous experience in implementing ERP systems should be weighed during the vendor selection process (Amoako-Gyampah& Salam, 2004). Sumner (1999) established that through the acquisition of external expertise by suppliers and consultants, the risks of ERP project failures that be minimized. Team Members involved in implementing should be chosen on the basis of their skills, expertise, credibility and versatility. Critical responsibility for decision taking should be assigned to these individuals (Jarred et al., 2000). 49.30 per cent of the effective implementation of SAP ERP in the studied companies is attributed to teamwork. Previous research shows that the position of an organization's maturity level contributes 25.20 per cent to the effective adoption of SAP ERP. Clear Targets & Objectives-Specific goals and priorities in line with time and expense contribute 30.70% to the progress of the implementation of the SAP ERP. This leads 44.20 per cent to the adoption of ERP performance. Project Budget & Time-all aspects are critical to ensure effective execution of the SAP ERP project. It determines budget 31.50 per cent in the research and time 21.90 per cent as factors in the role of implementation success (Amoako-Gyampah& Salam, 2004). We must have the tools and authorization required to achieve effective implementation of ERP (McGinnis & Huang, 2007).This has a function factor of 58 per cent in evaluating the effectiveness of implementation of SAP ERP. This is THE key factor for ensuring the success of SAPERP implementation, which requires a clear description of priorities, development of both a work plan and a resource plan, and careful monitoring of project progress (Sternad et al., 2011).

This has an effect of up to 44.70 percent on assessing ERP implementation performance. The determination of the

project team & steering committee, the selection of ERP consultants and the selection of the strategy & methodology for ERP implementation. Highlighting in this point is ZainalAriffinHasibuan and GedeRasbenDantes. Having a consultant the consultant will have experience of the climate of the client, which will help create and enforce the method that best suits their business. Many consultants lack ample experience with implementing SAP ERP (Françoise et al., 2009). The implementation strategy for ERP has a position of up to 48.60% to assess the effectiveness of the implementation of ERP. User involvement User involvement refers to the individual's psychological condition and is characterized as the importance and personal relevance of a program to a consumer (Žabjek et al., 2009). The customers would be interested in the stage of determining the specifications of the company's ERP program and also in the system implementation. User participation has a position of up to 37.30 per cent to assess ERP implementation performance. Improve management – Implementation of SAP ERP would improve management of the business. The changes will dramatically affect the systems, strategies, procedures and employees of the organizations. The company needs to be versatile enough to completely leverage these opportunities (Somers & Nelson, 2001). Change management plays a role of up to 40.60 percent in deciding ERP implementation performance. Implementation / Development – the system configuration / customization process enables the system to work within the production environment. User training – it has a role of up to 42.20 per cent to determine the success of implementation of ERP. It's an essential component to critical success. Implementation of ERP requires knowledge that will allow people to solve system problems. If the employees don't understand how a system works, they will invent their own processes using those parts of the system that they can manipulate. Similar research for other IT / software systems completed by CLG in 2014 highlighted the following issues that arise when implementing a poor system design: In general, IT engineers and project team members are not able to analyze device designs from different end users' perspectives. As a consequence, as people start using the latest method in the field they are still initially discouraged. Standardization resistance as IT processes are standardized will counter intuitive the resulting improvements to end users. Long learning curve all new technologies come with learning curves; that means proper professional preparation is necessary to facilitate change in behavior. While coaching leaders' support after go-live is even more critical to ensuring changes in those behaviors stick (Tarhini et al., 2015). Employees do not always resist the transition, but do resist the loss of rank, compensation, or comfort (Sternad et al . , 2011).They offered the following six primary reasons for resistance to the surface: the nature of the change is not made clear to people who will be influenced by the change, the change is open to a wide variety of interpretations, those influenced feel strong forces that dissuade them from changing, people influenced by the change put pressure on them to "make it" instead of having a say in the change.

Organizations which underestimate the management of change fail to enforce the ERP program. The organizations need to handle two forms of transition for the effective implementation of the ERP program. One, how the company does business will have to change and the other, how people do their jobs will have to change. Power Distance used to denote the relationship of dependency in a specific country, individualism and collectivism - Collectivism is more concerned with collective interest than with individual interest, insecurity Avoidance — the degree to which the members of a community feel threatened by ambiguous or unknown circumstances, masculinity & femininity — the extent to which dominance is used and interpreted throughout a society. The concept of cultural influences on the university's work practices is portrayed by findings collected by Beekhuyzen, 2001 as: "There is an overall social culture that people develop with each other, but then a culture of work discipline that focuses on the areas that people are interested. “Such limitations will also need to be taken into account when we consider the possible cultural effect on the use of information systems, in particular ERP systems (Liu &Seddon, 2009). Successful implementation of ERP has been affected by the implementation approach of ERP and the level of maturity of organizations (Rajan&Baral, 2015). Software is just one aspect of introducing ERP, because people and procedures must also be addressed. The ERP system will have a high chance of success in situations where the organization is making the minimum change to the business processes and software of the organization. Clear goals and goals should support the implementation strategy to ensure that the project direction is known (Tarhini et al., 2015).

Three often competing and interrelated goals are mentioned in project management which need to be met: scope, time, and cost goals. Project management co-ordinates the use of knowledge and skills. The formal plan for project implementation defines milestones as; project activities, activity planning and organization of the ERP project process (Sedera et al., 2003). Implementing an ERP system is a complex project that involves the possibility of unforeseen events occurring. Risk management is therefore necessary to minimize the impact of unplanned incidents by identifying potential risks before negative effects occur (Sedera et al., 2003), (Jarrar et al., 2000). The partnership with the ERP implementer vendor is a key success factor influencing success in implementing ERP. Each company has its own ideas on how to implement and adopt a system, which can mean the ERP ideas and the vendor can contrast with the wishes of the customers. It is hard work to synthesize those differences (Huang et al., 2004).

H1: There is a significant relationship between implementation development and SAP implementation success

H2: There is a significant relationship between deployment methodology and SAP implementation success

METHODS

The conceptual structure is the basis upon which the entire research project was developed. Logically it explains, elaborates and establishes the network of associations among all the variables important to the study. The diagram explains the relationship between independent and dependent variables in which the hypotheses can be easily postulated and aides the clear understanding of the dynamic situation. These models consist of two factors that have an effect on SAP project implementation.

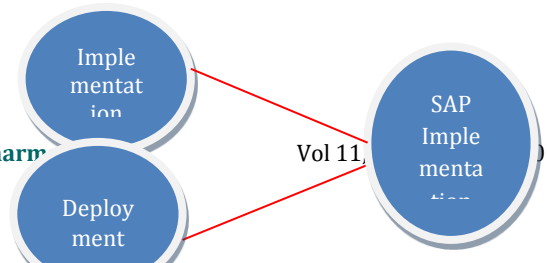

Figure 1: The Research Model

This work needs to define SAP's effective implementation with the related attributes of project planning, selection of technology, project implementation, implementation creation and deployment. The proposed research framework for this study and each of the variables has a specific effect on the determinant factor which could contribute to the implementation of SAP performance. The purpose of this study is to understand what problems were experienced by SAP users and vendors during the implementation stage within three Malaysian Companies and to identify the major causes of these problems. This research also helped to determine if there was a co-relationship between competence of the SAP partners and the problems. The three major Malaysian companies selected are; Syarikat Bekalan Air Selangor Berhad (Syabas), University Malaya (UM) and EdaranOtomotifBerhad (EON Berhad). These three major government linked companies (GLC) are very important in Malaysia. This study will there for focus on Syarikat Bekalan Air Selangor (SYABAS) who have currently implemented SAP ERP but users still struggle to operate it. The study examines The University of Malaya issues and problems since they implemented SAP ERP and then EON Berhad who implemented SAP quite some time ago but the performance results remain inconsistent. In this research data was collected by the use of an online survey tool called Survey Monkey; questions were prepared online and distributed to target respondents via email.

ANALYSIS

Correlation is a statistical measure of how two securities move among themselves. Correlations are measured into what is known as the coefficient of correlation that varies from -1 to +1 while the scale measuring the intensity of the relationship between the independent variable and the dependent variable. Also in this analysis hypotheses are tested to distinguish between two variables the significant relationship.

Pearson r	Indication
Between (-) (+) 0.80 to (-) (+) 1.00	High correlation
Between (-) (+) 0.60 to (-) (+) 0.79	Moderate High correlation
Between (-) (+) 0.40 to (-) (+) 0.59	moderately correlation
Between (-) (+) 0.20 to (-) (+) 0.39	Low correlation
Between (-) (+) 0.01 to (-) (+) 0.19	Negligible correlation

Correlation coefficient (r) is computed to investigating the strength of association among the variable. The level of significance is set at .05 or less.

Figure 2: Pearson correlation

Table 1: Correlation between all variables

Correlations						
		SP	TS	PF	ID	DT
SIS	Pearson Correlation	-.227**	.630**	.352**	.619**	.596**
	Sig. (2-tailed)	.027	.000	.000	.000	.000
	N	71	71	71	71	71
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

The results show that there is a significant value between these two dimensions as the p value is smaller than the meaningful value (p = 0.027 which is < 0.05). The results revealed that there are 2.7 percent of respondents who did not agree that SAP implementation success impacts on project preparation. This is simply because the low correlation as a correlation coefficient between these two dimensions is at (r=-0.227). The findings showed a positive relationship between the two dimensions as the p value is greater than the relevant value (p=0.000 which is < 0.05) and the correlation coefficient stands at (r=0.630) which is considered to be a reasonably high correlation. The results show that there is a positive correlation between these two dimensions, with the results for the p value being lower than the meaningful value (p = 0.000 < 0.05). There is however a low correlation between these two dimensions as the coefficient of correlation is (f=0,352). The results indicate that between these two dimensions there is a significant value as the p value is smaller than the meaningful value (p=0.000 which is < 0.05). In addition, there is a moderate high correlation between these two dimensions, as the coefficient of correlation is (0.619).There's a strong link between effective delivery and implementation of SAP with a meaningful value of 0.000 that is < 0.05. There is a moderate correlation between these two dimensions, since the coefficient of correlation is (0.596). As a conclusion of the results of the hypothesis testing, project preparation, selection of technologies, project formulation and implementation development all have a significant influence on the success of SAP implementation.

The model description indicates that the R association of five independent variables, Implementation Design (ID) and Deployment (DT) with the SAP Implementation Performance dependent variable, is equal to 0.729. R square is created after inter-correlation-in reality the

square of R (0.729)2. That means 72.9 percent of the five independent variables have an impact on the variable dependent. In other words, the independent variables explained 72.9 per cent of the variance in the SAP Implementation Success. Based on the rule of thumb this regression analysis did not explain the remaining 27.1 percent. The table of ANOVA reveals that the value of F is 20.225 and is at the relevant point of 0.000. This finding shows that the five independent variables substantially affected 72.9 per cent of variance (R-square) in SAP Implementation Performance.

Table 2: Regression Analysis of ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.173	5	5.235	20.225	.000[a]
	Residual	23.035	89	.259		
	Total	49.208	94			
a. Predictors: (Constant), DT, SP, PF, ID, TS						
b. Dependent Variable: SIS						

The five independent variables explain 78.2 percent of the variance in SAP Implementation Success. The results from the table show that the Beta of Implementation Development (ID) is 0.188 and Deployment (DT) is 0.312. It means that every 1 percent increase of independent variable will be affected by the Beta for each variable. Based on the results, Technology Selection and Deployment have the highest impact on SAP Implementation Success. The results show that Project Preparation has the least impact on SAP Implementation Success. While Deployment has a moderate score and Project Formulation a low score. In addition, Technology Selection and Deployment p value score is less than 0.05 (p=0.032- technology selection, p=0.01 - deployment) and is a significant predictors of SAP Implementation Success. Others, such as Project Preparation (p=545), Project Formulation (p=0.161) and Implementation Development (p=0.156) are not predictors of SAP Implementation Success.

Table 3: Regression Analysis Result of Coefficient Test

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.013	.577		.023	.982
	SP	-.060	.098	-.047	-.607	.545
	TS	.374	.171	.282	2.18	.03
	PF	.158	.112	.116	1.41	.16
	ID	.252	.176	.188	1.43	.15
	DT	.319	.091	.312	3.51	.00
a. Dependent Variable: SIS						

The five (5) factors proposed earlier have been tested. Tested the five (5) factors proposed earlier. Data from selected respondents within Syarikat Bekalan Air Selangor Berhad (Syabas), University of Malaya (UM) and EdaranOtomotifBerhad (EON Berhad) were obtained using a sample of 95 respondents; all companies are located in Kuala Lumpur. The key goal was to look at Application Growth (ID) and Delivery (DT) strengths.

DISCUSSIONS AND CONCLUSIONS

In this research, some elements of the independent variable were investigated, the researcher feels that there are still other elements that can be added to the variables in order to improve future research. The sample size and physical coverage to some extent has influenced the quality of the research findings and its ability to generalize The coverage of this research was a relatively small sample size consisting of 95 respondents from Bekalan Air Selangor (SYABAS), University of Malaya (UM) and EON Berhad (EdaranOtomotifBerhad) in Kuala Lumpur, due to time constraints and some other limitations. Thus the results can be deficient in precision and less representative. To improve this, the scope of physical coverage should be broadened, and the representation aspect should be addressed if the findings are to be generalized to the entire population. As for the methods of collection, the present work uses only the quantitative approach of gathering data using questionnaires. Research of this nature may benefit from a more comprehensive process, as it requires subjectivity in views, expectations and feelings towards positive implementation of SAP, and these values were not completely captured by the questionnaire approach. Researchers need to supplement this analysis with other approaches like interviews and focus groups for debate in order to provide a more comprehensive insight into the responses. Developing this approach will improve the credibility of the findings and discussions and make them more effective.

REFERENCES

1. Aarabi, M., Saman, M. Z. M., Wong, K. Y., Azadnia, A. H., & Zakuan, N. (2012). A comparative study on critical success factors (CSFs) of ERP systems implementation among SMEs and large firms in developing countries. *International Journal of Advancements in Computing Technology, 4*(9), 226-239.
2. Abdullah, A. A., Rahman, H. A., Harun, Z., Alashwal, A. M., & Beksin, A. M. (2010). Literature

mapping: A bird's eye view on classification of factors influencing project success. *African Journal of Business Management, 4*(19), 4174-4182.
3. Al-Fawaz, K., Eldabi, T., & Kamal, M. (2011). Investigating factors influencing the decision making process for ERP adoption and implementation: an exploratory case study.
4. Al-Mashari, M., & Zairi, M. (2000). The effective application of SAP R/3: a proposed model of best practice. *Logistics Information Management*.
5. Amoako-Gyampah, K., & Salam, A. F. (2004). An extension of the technology acceptance model in an ERP implementation environment. *Information & Management, 41*(6), 731-745.
6. Chien, S.-W., & Tsaur, S.-M. (2007). Investigating the success of ERP systems: Case studies in three Taiwanese high-tech industries. *Computers in Industry, 58*(8-9), 783-793.
7. Françoise, O., Bourgault, M., & Pellerin, R. (2009). ERP implementation through critical success factors' management. *Business process management journal*.
8. Hasibuan, Z. A., & Dantes, G. R. (2012). Priority of key success factors (KSFS) on enterprise resource planning (ERP) system implementation life cycle. *Journal of Enterprise Resource Planning Studies, 2012*, 1.
9. Holland, C. P., Light, B., & Gibson, N. (1999). *A critical success factors model for enterprise resource planning implementation.* Paper presented at the Proceedings of the 7th European conference on information systems.
10. Huang, S.-M., Hung, Y.-C., Chen, H.-G., & Ku, C.-Y. (2004). Transplanting the best practice for implementation of an ERP system: A structured inductive study of an international company. *Journal of Computer Information Systems, 44*(4), 101-110.
11. Jarrar, Y. F., Al-Mudimigh, A., & Zairi, M. (2000). *ERP implementation critical success factors-the role and impact of business process management.* Paper presented at the Proceedings of the 2000 IEEE International Conference on Management of Innovation and Technology. ICMIT 2000.'Management in the 21st Century'(Cat. No. 00EX457).
12. Liu, A. Z., & Seddon, P. B. (2009). Understanding how project critical success factors affect organizational benefits from enterprise systems. *Business process management journal*.
13. McGinnis, T. C., & Huang, Z. (2007). Rethinking ERP success: A new perspective from knowledge management and continuous improvement. *Information & Management, 44*(7), 626-634.
14. Nanayakkara, S., Perera, P., & Perera, A. (2013). Factors Influencing Selection and Effective Implementation of ERP Systems in Medium Sized Organizations in Developing Countries. *International Journal of the Computer, the Internet and Management, 21*(2), 7-14.
15. Rajan, C. A., & Baral, R. (2015). Adoption of ERP system: An empirical study of factors influencing the usage of ERP and its impact on end user. *IIMB Management Review, 27*(2), 105-117.
16. Sedera, D., Gable, G., & Chan, T. (2003). Knowledge management for ERP success. *PACIS 2003 proceedings*, 97.
17. Shanks, G., Parr, A., Hu, B., Corbitt, B., Thanasankit, T., & Seddon, P. (2000). Differences in critical success factors in ERP systems implementation in Australia and China: a cultural analysis. *ECIS 2000 Proceedings*, 53.
18. Soliman, K. S., Janz, B. D., Puschmann, T., & Alt, R. (2005). Successful use of e-procurement in supply chains. *Supply Chain Management: an international journal*.
19. Somers, T. M., & Nelson, K. (2001). *The impact of critical success factors across the stages of enterprise resource planning implementations.* Paper presented at the Proceedings of the 34th Annual Hawaii International Conference on System Sciences.
20. Sternad, S., Gradisar, M., & Bobek, S. (2011). The influence of external factors on routine ERP usage. *Industrial Management & Data Systems*.
21. Tarhini, A., Ammar, H., Tarhini, T., & Masa'deh, R. e. (2015). Analysis of the critical success factors for enterprise resource planning implementation from stakeholders' perspective: A systematic review. *International Business Research, 8*(4), 25-40.
22. Tenkasi, R. V., & Chesmore, M. C. (2003). Social networks and planned organizational change: The impact of strong network ties on effective change implementation and use. *The Journal of Applied Behavioral Science, 39*(3), 281-300.
23. Themistocleous, M., Roseman, M., Loos, P., Buonanno, G., Faverio, P., Pigni, F., . . . Tagliavini, M. (2005). Factors affecting ERP system adoption. *Journal of Enterprise Information Management*.
24. van Slooten, K., & Yap, L. (1999). Implementing ERP information systems using SAP. *AMCIS 1999 Proceedings*, 81.
25. Yahya, I., Hasibuan, R. P. S., & Torong, Z. B. (2018). Factors that Influence Success Implementation of Government Accounting Standard (SAP) Based on Accrual in the Government of the Districts/Cities in North Sumatera Province. *Journal of Management Information and Decision Sciences*.
26. Žabjek, D., Kovačič, A., & Štemberger, M. I. (2009). The influence of business process management and some other CSFs on successful ERP implementation. *Business process management journal*.
27. Nguyen H.N., Tham J., Khatibi A., Azam S.M.F. (2019). Enhancing the capacity of tax authorities and its impact on transfer pricing activities of FDI enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province of Vietnam , Management Science Letters
28. Nikhashemi S.R., Paim L., Haque A., Khatibi A., Tarofder A. K. (2013). Internet technology, Crm and customer loyalty: Customer retention and satisfaction perspective , Middle East Journal of Scientific Research
29. Pathiratne S.U., Khatibi A., Md Johar M.G. (2018). CSFs for Six Sigma in service and manufacturing companies: an insight on literature, International Journal of Lean Six Sigma
30. Seneviratne K., Hamid J.A., Khatibi A., Azam F., Sudasinghe S. (2019). Multi-faceted professional development designs for science teachers' self-efficacy for inquiry-based teaching: A critical

review, Universal Journal of Educational Research
31. Sudari S.A., Tarofder A.K., Khatibi A., Tham J. (2019). Measuring the critical effect of marketing mix on customer loyalty through customer satisfaction in food and beverage products, Management Science Letters
32. Tarofder A.K., Haque A., Hashim N., Azam, S. M. F., Sherief S. R. (2019). Impact of ecological factors on nationwide supply chain performance, Ekoloji