

# TOP MANAGEMENT AND EXTERNAL EXPERT SUPPORTS IN IMPLEMENTING ACCOUNTING INFORMATION SYSTEM IN ENTERPRISE RESOURCE PLANNING ENVIRONMENT

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## ABSTRACT

For the last century, the emergence of the Enterprise Resource Planning (ERP) Accounting Information System (AIS) to enhance the organization's efficiency has evolved significantly in Sri Lanka. Nevertheless, little or no evidential has been carried out in Sri Lanka. Therefore, this study examines the TMS and External Expert Support on the ERP system Quality and Accounting Information Quality in the ERP environment of the listed companies implementing the ERP system in Sri Lanka. The primary data was collected using a self-administered questionnaire of 217 public company accounting professionals. Moreover, the conceptual model has been statistically confirmed by Structural Equation Modeling (AMOS 23). This study showed that support of top management and external experts significantly influenced the quality of the ERP system. As well as on Accounting Information Quality. Hence, organizations need to pay more attention to TMS, and EES to implement AIS in the ERP environment. This, in turn, would promote the involvement of public corporations in the country's real growth.

**Keywords:** *Accounting Information System, EES, ERP, and TMS*

## INTRODUCTION

With the advent of ERP systems, business firms now have a selection of cohesive application modules that cover most business functions that help in cost reduction and process improvement (Scapens & Jazayeri, 2003). According to Noudoostbeni et al. (2010), ERP is among the critical business solutions for facilitating businesses' effective

management of their resources. The ERP system is also also affects the function of accountants by replacing or consolidating many of their roles; this, therefore, changes the way their job is conducted. Accountants will have to tackle such changes positively. Organizations generally take on enormous IT modernization programs only to liquidate these as a result of failed implementations. For example, efforts by Sobeys (Canada's second-largest supermarket chain) to improve operations have failed (Mearian & Songini, 2001). This is not the only example. In 2003, KPMG reported that 58% of the 230 global largest companies had written off at least one IT project in the previous year. Furthermore, of the 180 companies not aware of the total impact of the failure, an average of \$10.4 million was lost to a specific project.

Top management support is a significant factor in large-scale IS implementation. Senior managers are responsible for 'the crucial functions of transformation leadership, marketing the project to the users, and facilitation' (Akkermans & Van Helden, 2002). Studies have shown that TMS can improve IT adoption, dissemination and usage. All of the information about TMS that has ever been resulted in irrelevant and unhelpful conclusions.

The consulting firms also assist in the implementation of ERP. The external consultants, who provide technical and business expertise, reduce client knowledge requirements (Thong, 2001). Their expertise allows clients to configure an appropriate ERP system and helps train users to exploit the technology entirely. When the knowledge gap exists between the organization and the consultants, the consultants mainly

manage ERP implementation. Researchers, such as Thong and colleagues (Thong, 2001; Thong, Yap Chee-Sing, Raman, 1996) recognized the importance of external consultants in the traditional Information System (IS) implementation. For example, Thong, Yap Chee-Sing, Raman (1996) found that high-quality external experts were more crucial to IS effectiveness than TMS in small businesses.

Top Management and External Experts are essential for a successful ERP implementation. There have been no empirical studies, which directly investigate the influence of Top Management and External experts supports on ERP implementation. Through this study, I investigate the effect these human factors have on the consulting process related to conflict resolution and effective communication. This study reveals that essential management figures are involved in consulting with executive management. This study highlights the contribution of top management, and outside consultants, to the process of ERP consultation.

This study will contribute to the general debate on the introduction of accounting into ERP technology. Although these researches contributed rigorously to the accounting literature, they did not use models from the information systems literature to explain the quality of the information system in connection with the Accounting information system. The models of DeLone and McLean (1992 and 2003) illustrate these information system success models. In this research, those models are to be used to study accounting information systems.

## **LITERATURE REVIEW**

Very recently, Daoud and Triki (2013) examined the ERP-based AIS impact on Firm Performance. According to them, the ERP system has brought an evolution to AIS. On the other hand, Chenhall (2003) studied management control systems design within an organizational context and found that the aim of AIS has risen from one that is based on financial information to one that is more comprehensive. Many studies have attempted to investigate ERP impacts on AIS (Galani et al. 2010). However, Scapens and Jazayeri (2003) examined the effect of ERP on management accounting and found that it delivers valuable information to managers and increases management accountants' role.

According to Alzoubi (2011), AIS-integrated ERP can enhance the quality of a company's accounting outcomes and internal control and improve the accounting information's relevancy and lessen the decision-makers' uncertainties. Additionally, an ERP system elucidates a company's overall activities and its financial and accounting positions. Likewise, Galani et al. (2010) in examining the association among ERP, AIS and accounting practices concluded that ERP enhances accounting processes. This article aims to prove and bring the context of ERP literary works and provide a framework to understand AIS, ERP, and relevant concepts and comprehension to construct knowledge about a particular area that social scientists could provide preferential perspectives and research efforts. Hence, AIS research is considered an important ERP modelling topic on current AIS research topics in an ERP environment.

## **Theoretical Background**

Accordingly, this study follows the IS success Model introduced by Delone and McLean (1992, 2003) as well as the contingency theory by Galbraith (1973,1977) in examining the correlations between the contingency factors namely Top Management Support (TMS), and External Expert Support (EES) and the effect of AIS. These theories were carefully chosen as a foundation in this study. They propose that organizational management cannot be explained by only one way, and that IS is driven by various factors including environmental conditions, business strategies, organizational structures and management styles. Hence, the contingency theory is deemed to be the most appropriate for examining the workings of AIS.

## **The Information System Success Theory**

### **Delone and McLean's model (1992)**

This model is among the most prominent models of information system success. In their model, they classified the flows for several reasons. Firstly, they provided a complete view of IS success. Secondly, they organized a rich body of research into a more understandable way. Thirdly, they explained the inconsistent findings. Fourthly, they pointed out significant works that had been completed and fifthly, they meant to point out that much work remains necessary to evaluate the effect on firm performance.

### **DeLone and McLean's Model (2003) Ten-Years Update**

DeLone and McLean (D&M), updated to a new model and refined the earlier model. They posited an IS theoretical framework capable of capturing the multiple dimensions and interdependency of IS success. The updated model adds service quality and the disintegration of individual and organizational impacts as among its benefits. Scientific effectiveness is determined by system quality in the original DeLone and McLean model. The model displays various features with various extents of system and information qualities. Then it evaluates the influences the user of the system and consequently measure individual impact on organizational impact.

Ifinedo (2008) examined the relationship between ERP system success and the contingency factors of TMS, the vision of the business, and external expertise in the context of two Northern European countries. More significantly, the external expertise quality was highlighted compared to the other two variables. Interestingly, this result exhibited that however the three contingency variables were considered positively influenced by ERP system success. Daoud and Triki (2013) researched AIS in an ERP environment on Firm Performance. The study was focused on to measure the influences of AIS on organizational performance in an ERP environment. They explored the direct impact of TMS and EES on the AIS. The following variables were identified from the previous literature as significant variables.

**Top Management Support:** TMS refers to the extent to which the top management acknowledges and participates in the ERP system's

implementation. According to Jarvenpa and Ives, (1999), TMS may be regarded as the top-level management commitments to achieve an alignment between organisational objectives and goals. Considering the significance of TMS concerning the ERP System, the top management is accountable for undertaking any agreement between firms' requirements and the ERP system.

**External Expert Supports:** External expertise discusses the degree to which external parties such as consultant and suppliers who disseminate knowledge, provide training to the service taker, maintain the system and provide other technical services to the implementing firm. Hence, vendors and consultants are essential for ERP system initiatives in adopting in firms as they have enough experience and expertise in their field (Markus & Tanis, 2000; Davenport, 2000).

**ERP System Quality:** System quality denotes system quality processing itself, which mostly assesses how technical the information system is sound. Delone and Mclean (1992, 2003) stated that system quality could be measured with system integration, flexibility, reliability, and response time. Moreover, the system quality can be measured by characteristics such as ease of use, flexibility, reliability, functionality, and integration (Delone & Mclean, 2003).

**Accounting Information Quality:** The quality of the information is the value of the outcome derived by the system's superiority (Delone & McLean(1992). The information quality is the fundamental measures of accounting information that is helpful to management while driving

strategic direction. According to Laudon and Laudon (2009), information quality is derived by accounting system quality and accounting information quality is usually used by internal and external users to plan, control and monitor organization (Salehi et al. 2010). McLeod and Schell (2007) emphasized that the quality of information is the qualified output with accuracy, relevancy, timeliness and completeness.

## **RESEARCH METHODOLOGY**

### **Conceptual Framework**

In achieving organizational success IS theory and contingency theory are mainly relevant. TMS and EES are the recommended influential contingent variables for both accounting and IS research. (Iffinedo, 2011; Wang & Chen, 2006). Instead, the main focus of the present study is on two areas. Firstly, the researchers wanted to study the influences identified in recent studies, especially on TMS and EES of AIS in an ERP environment. Then, it was examined the effect of AIS in an ERP environment. DeLone and McLean's (1992) success theory is the critical aspect of the current research, which reaches the quality dimension of IS, which will have corresponding effects on the organisation's success. Different studies (Wixom & Watson 2001) have expressed that system quality and information quality are significantly intertwined to their impacts. Generally, a maximum outcome is produced by IT application when it's as high system quality and information quality (Wixom & Watson, 2001; Gable, 2010; Sedera & Chan, 2008).



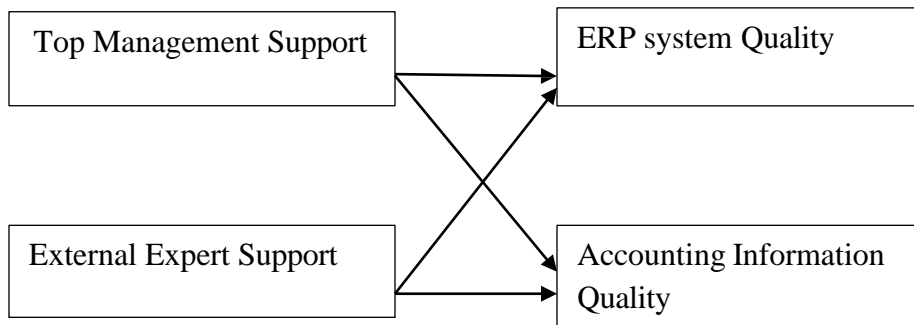


Figure 1: Conceptual Framework

## Hypothesis Development

### Top Management Support and ERP System Quality

TMS for ERP defines that top-level management in organization facilitates to manage and takes responsibility for best direction, provide authority and allocating financial and physical resources during and after the implementation of the IS, especially concerning ERP system. Moreover, Sabherwal et al. (2006) also stated that TMS in the implementation of IS significantly affects IS system quality, and further concluded that top management involvement in initiating IS and defining the objectives of IS can result in higher system quality. Likewise, DeGuinea et al. (2005) indicated that TMS positively affects the ease of AIS usage. The following hypothesis based on the above deliberations:

**Hypothesis H1: TMS influences ERP System Quality in ERP Environment.**

### External Experts Support and ERP System Quality

External experts entail the extent to which external entities such as consultants and vendors support training, monitoring, maintaining, and providing other technical assistance in implementing IS. Similarly, According to Markus and Tanis (2000) and Wang and Chen (2006), competent external experts of ERP systems provide knowledge, guidance and training to their clients during and after implementing the system. Those who found that the support of external experts in ERP implementation affects the quality of the system(Wang & Chen,2006). In line with this statement, Ismail (2009) has also shown external specialists to improve the system's quality. The following hypothesis, based on those mentioned above:

**Hypothesis H2: External Expert influences ERP System Quality in ERP Environment**

**Top Management Support and Accounting Information Quality**

TMS as the dimensions of commitment, authority and participation in implementing an IS (Ismail, 2009). As stated in different accounting research, it, therefore, shows that a positive workplace attitude and the environment is created by top management contributions to provide employees, capital, infrastructure, knowledge, training, trust and hope to achieve positive results from AIS on quality accounting information (Young & Jordan, 2008). Therefore, management commitment to guarantee the required quality is essential to organizations striving to practice proper AISs. Ismail and King (2007) stated that an incomprehension of the AISs among managers leads to a decrease of AIS capacity output. Al-Eqab and Ismail (2011) showed that the top

management contribution has a significant impact on AIQ. Hence, it is proposed:

### **Hypothesis H3: TMS Influences on AIQ in ERP Environment**

#### **External Expertise Supports and the AIQ**

External expertise usually includes mediators as vendors and consultants who, at the organization's requirements, deliver technical knowledge, training for personnel, maintenance of the system, and other technical assistance (Ifinedo, 2008). The quality of information systems' information is completely reliant primarily on the quality of external expertise (Nabizadeh & Omrani, 2014). Ismail (2009) asserted that the improved information system offers quality information and outcomes with external experts' assistance.

### **Hypothesis H4: EES influences AIQ in ERP Environment**

#### **Sampling**

A sample framework for this study was selected for the Colombo Stock Exchange (CSE) of 295 listed companies in Sri Lanka, using ERP system currently. All the companies were taken as the sample population. The 2016 members' list book of the Chartered Institute of Sri Lanka comprises useful information concerning the members' backgrounds including their workplaces, job positions, telephone and fax numbers, and email addresses. Approximately 175 ( $S=300$ :  $n=175$ ) companies can be used as the sample population in this study out of the 295 listed companies in Sri Lanka in 2016 (Sekaran & Bougie (2012). The sample was selected through random sampling of 217 companies. The questionnaire consists related to measuring questions addressing the currently used TMS, EES, ERP System Quality, and AIQ in ERP

environment. At five points, the Likert scale is used in the research questionnaire, ranging from 1 to 5, where 1 indicates the statement “Strongly Agree” and 5 indicates “Strongly Disagree”.

## **DATA ANALYSIS**

In this research study, the primary analysis was done using the Structure Equation Modeling (SEM). This study was conducted based on several critical criteria: The indices criteria for RMSEA is acceptable when the values fall  $< 0.5$  good;  $< 0.8$  is deemed to be acceptable (Cunningham, 2008) whilst values of between 0.5 and 10 are deemed as moderate (Hair et al. 2010). The root means squared residual (RMR) should be less than 0.5 to be acceptable (Hair et al. 2010). As for CFI and TLI, their values should be above 0.90 to indicate a good model fit (Hair et al. 2010). The results show that 197 (90.8%) of the responding companies implemented ERP through vendors in Sri Lanka, while 20 (9.2%) implemented in-house developed ERP, as shown in Table 1.

**Table 1: ERP System Implementation Mode**

ERP implementation in Company	Frequency	Percentage
Implementation by vendor	197	90.8
In-house Developed	20	9.2
Total	217	100.0

The measurement model fits the data, as significantly demonstrated by the chi-square fit of  $CMIN/ df = 1.317$ . By observing the absolute fit indices and incremental fit indices, RMSEA is  $0.038 < 0.08$ ; however, TLI=0.950 and CFI=.953 are above the cutoff point GFI= 0.794 which is

less than the standard cutoff value. RMR is 0.032, which is less than 0.05. The composite reliability (CR) and average variance extracted (AVE) for the final measurement model constructs were more than 0.6 and 0.5, respectively (Table2), which is considered a reliable measure for each of the constructs. According to Hair et al. (2010), convergent validity is confirmed when the AVE value is higher than 0.5 and the CR value is higher than the AVE value.

**Table 2: AVE and CR Values for the Final Measurement Model**

Variables	AVE	CR
TMS	0.636	0.913
EES	0.578	0.905
ERP System Quality	0.683	0.928
AIQ	0.617	0.928

Table 3 demonstrates the average variance extracted (AVE) to be higher than all the correlations ( $r^2$ ) of the matching constructs (i.e. TMS, EXS, ERP, and AIQ), thus confirming the constructs' discriminant validity (Chinna, 2013).

**Table 3: Testing for discriminant validity for the final measurement model**

	TMS	EXS	ERP	AIQ
TMS	.636			
EXS	.527	.578		
ERP	.599	.542	.683	
AIQ	.453	.521	.548	.617

The final structural model revealed the following indices Chi-square value by 1750.339 and df value by 1113: CMIN/df= 1.471, RMR=0.035,

GFI=0.865, TLI=0.961, CFI=0.964, and RMSEA= .047. 49 items in the final structural model fit the data adequately except for GFI, which is closer to .9. It further highlights that all the items delivered an analogous contribution to each construct’s operationalization (as shown in Figure 3 and Table 4).

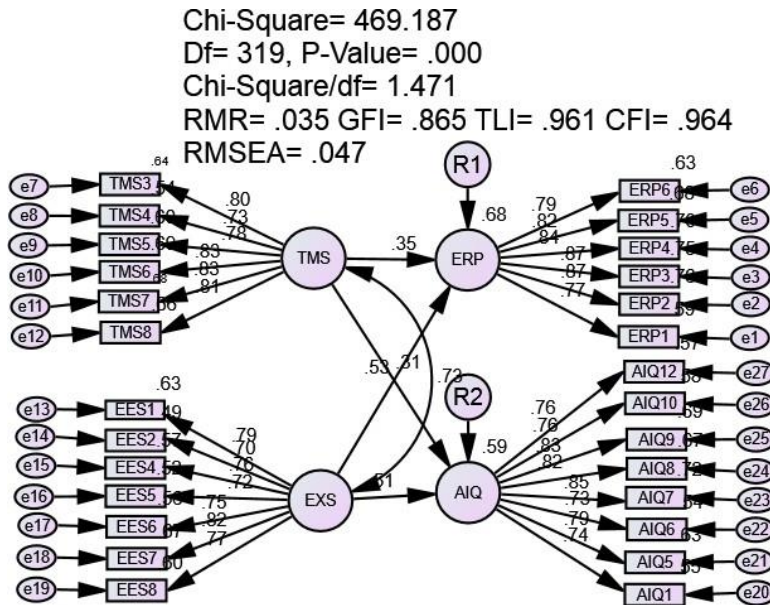


Figure 2: Refined Structural Model

**Table 4: Regression Weights and hypothesis: (Group number 1 - Default model)**

Path	Direction	Hypothesis	Un std. Estimate	S.E.	C.R.	P	Std. Estimate	Conclusion
ER	<--	TM	.399	.09	4.44	**	.347	Supported
P	-	S			7	*		
AIQ	<--	EXS	.482	.08	5.60	**	.511	Supported
AIQ	-				5	*		
AIQ	<--	TM	.326	.08	3.65	**	.312	Supported
AIQ	-	S			5	*		
ER	<--	EXS	.556	.08	6.49	**	.535	Supported

Path Direction	Hypothesis	Unstandardized Estimate	S.E.	C.R.	P	Std. Estimate	Conclusion
P	-		6	3	*		

H1: “TMS influences on ERP System Quality in ERP Environment” is supported because the standardised regression coefficient of the path relationship is statistically significant between TMS and ERP System Quality (Regression Coefficient ( $\beta$ ) = 0.347, at a significant level of  $p=0.000 < 0.001$ ). It also can explain 68% of the variation of ERP System Quality and 59% of the variation of AIQ. Hence, Hypothesis H1 confirmed that TMS influences ERP System Quality because a statistically significant positive influence of TMS is found on ERP System Quality. This finding is compliant with that of (Ifinedo, 2008; DeGuinea, 2005; Wang and Chen, 2006; Daoud and Triki, 2013).

H2: “External Expert influences on ERP System Quality in ERP Environment” is supported because the standardised regression coefficient of the path relationship is statistically significant between External Expert Support and ERP System Quality (Regression Coefficient ( $\beta$ ) = 0.511, at a significant level of  $p=0.001 < 0.001$ ). This indicates that EES positively and significantly influences ERP System Quality. It also can explain 68% of the variation of ERP System Quality and 59% of the variation of AIQ. Hence, Hypothesis H2 confirmed that EES influences ERP System Quality, which is consistent with the previous finding of similar studies (Ifinedo, 2008; Wang & Chen, 2006).

H3: “TMS influences AIQ in ERP Environment” is supported because the standardised regression coefficient of the path relationship is

statistically significant between TMS and AIQ (Regression Coefficient ( $\beta$ ) = 0.312, at a significant level of  $p= 0.001 <0.001$ ). This indicates that TMS significantly influences AIQ. It also can explain 68% of the variation of ERP System Quality and 59% of the variation of AIQ. Hence, H3 confirmed that TMS influences AIQ. Therefore, this study supports the findings of other similar past studies (Daoud & Triki, 2013;Al-Eqbal & Ismail, 2011).

H4: “EES influences AIQ in ERP Environment” is supported because the standardised regression coefficient of the path relationship is statistically significant between EES and AIQ (Regression Coefficient ( $\beta$ ) = 0.535, at a significant level of  $p= 0.001 <0.001$ ). The findings show that the path from EES to AIQ takes a positive standardized regression weight ( $\beta$ ) = 0.280, which is significant at 5% ( $p=0.008 < 0.05$ ). It also can explain 68% of the variation of ERP System Quality and 59% of the variation of AIQ. As a result, Hypothesis H4 confirmed that EES influences AIQ. This is consistent with the findings from past researches (Ifinedo, 2008; Ismail, 2009). Similarly, Ifinedo (2008) asserted that EES affects the quality of the information produced by the system. Especially for AISs, external expert advice can offer superior quality information, thus creating an efficient accounting information system (Ismail, 2009).

## **CONCLUSION AND RECOMMENDATIONS**

The hypothesized developed model is subsequently empirically tested using suitable analysis from a field survey of publicly listed companies in Sri Lanka. The main finding suggests that TMS and EES influences on ERP System Quality and AIQ. As a result, TMS has been confirmed in



ERP Environment's perspective to influence ERP System quality. Regarding the objective, the first hypothesis (H1) was confirmed that TMS influences the quality of ERP system. In the same vein, TMS would also allow the AIS to produce financial information. Their continuous contribution and support would allow the production of efficient and effective financial information.

Similarly, based on the objective, Hypothesis H3 confirmed that TMS influences AIQ. The same is true of previous studies like Daoud and Triki (2013). These results confirm that TMS influences AIS in terms of system quality and information quality. TMS also facilitates easy operation and usage, as well as delivers the required functions upon user request. Thus, TMS is required in defining information system needs, selection and implementation, usage of system application, and maintenance of the ERP system.

Hypothesis H2 implies that EES affects the quality of ERP's system. Hence, Hypothesis H2 confirmed that EES influences ERP System Quality consistent with past studies' findings (e.g. Ifinedo, 2008; Wang & Chen, 2006). A statistically significant influence of EES on ERP System Quality was found to be positive. Indeed, ERP consultants' trustworthiness and the quality of their services and support delivered to the public listed companies would result in a high-quality ERP system. Thus, organizations hire external experts who would usually provide knowledge sharing, training, and support, facilitating the effective usage of the ERP system.

Regarding the impact of EES on AIS, the influence of this variable was confirmed about AIQ (H4). It shows that EES has a considerable positive effect on AIQ. It was concluded that even if the external experts are competent, a fast and continuous flow of information with extended details is still needed. Thus, AIQ keeps important concern of external support to the organization, as it knows accounting information attributes.

Ifinedo (2008) also concluded that external experts affect information quality produced by the system in the same vein. Similarly, in the AIS context, assistance and continuous support from external experts can result in quality information and useful AIS (Ismail, 2009).

The finding of this study revealed that TMS, EES and ERP System Quality significantly and positively affect AIQ. Meanwhile, TMS and EES have been found to be a significant and positive impact on AIQ. Meanwhile, ERP System Quality mainly impacts AIQ as found by Daoud and Triki (2013). Therefore, this newly developed concept is recommended to accounting practitioners because it has a direct effect upon ERP System Quality and AIQ. Based on the findings, it is recommended for organizations to pay more attention to TMS when implementing ERP systems. Top management must confirm new accounting information as a system to functioning the streamlined practices of their organization. In addition to that, management should provide necessary resources as a need such as knowledge sharing, financial and human support invested in IS implementation among large organizations. In addition to this, TMS is crucial in ensuring the success of AIS implementation in an ERP environment because they play a

significant and dominant role in IS implementation and financial resource planning.

Besides Top management should promote departmental participation, develop strategies and practices for streamlined management practice, keep strong interaction with employees and external experts, improve external expert ties and recruit ERP staff. Attention is also recommended on EES, which is crucial for implementing the ERP system through AIS. Meanwhile, External Expert influences the ERP implementation process by providing continuous, compelling and varied services including performing requirements analysis, suggesting proper solutions, aligning organizational operations and processes with the system modules, facilitating system configuration, providing detailed software knowledge, activating in-house expertise and resources as well as user training.

Organizations should develop an advanced IT infrastructure that should benefit the ERP system's implementation, especially in terms of flexibility, ease of use, reliability and usefulness for specific functions. Such resources will bring improved competitive advantage as well as Firm Performance. ERP System Quality is mainly vital for the successful running of the IS unit and the organization. There should be a proper mechanism which should be implemented for ERP System Quality improvement. In the meantime, AIQ is positively associated with the rapid improvement in Firm Performance. AIQ can be improved at the organizational level, such as by aligning IT development strategies with business strategies.

Meanwhile, information output can be designed to provide relevant information that improves Firm Performance. Hence, this is the one area that organizations have to consider when they implement ERP systems. To further develop accounting applications, techniques and practices that are currently important to tackle the issues faced by the achievement of business strategy success, listed companies must consider the quality of both ERP's system and AIQ in ERP implementation.

## **REFERENCES**

- Akkermans, H & Van Helden, K, 2002, 'Vicious and Virtuous Cycles in ERP Implementation: A case study of interrelations between critical success factors, *European Journal of Information Systems*, vol. 11, no. 1, pp. 35–46.
- Al-Eqab, M, & Ismail, NA, 2011, 'Contingency Factors and Accounting Information System Design in Jordanian Companies', *IBIMA Business Review*.
- Alzoubi, A, 2011, 'The effectiveness of the accounting information system under the enterprise resources planning (ERP)', *Research Journal of Finance and Accounting*, vol. 2, no. 11, pp. 10-19.
- Bagozzi, RP, 1980, 'Casual Models in Marketing'. John Wiley and Sons, New York
- Bollen, KA, 1989, 'Structural Equations with Latent Variables. New York: John Wiley and Sons.
- Chenhall, RH, 2003, 'Management control systems design within its organizational context: findings from contingency-based research and directions for the future', *Accounting, organizations and society*, vol. 28, no. 2, pp. 127-168.

- Daoud, H, & Triki, M, 2013, 'Accounting information systems in an ERP environment and Tunisian Firm Performance' *The International Journal of Digital Accounting Research*, vol. 13, pp. 1 – 35.
- Davenport, TH, 2000, 'Mission critical: realizing the promise of enterprise systems'. Boston: Harvard Business School Press
- DeGuinea, A, Kelley, H, & Hunter, MG, 2005, 'Information System Effectiveness in Small Business: Extending a Singaporean model in Canada', *Journal of Global Information Management*, vol. 13, no. 3, pp.55-70.
- DeLone, WH, & McLean, ER, 1992, 'Information systems success: the quest for the dependent variable', *Information Systems Research*, vol. 3, no. 1, 60-95
- Delone, WH, & McLean, ER, 2003, 'The Delone and McLean model of information systems success: a ten-year update', *Journal of Management Information Systems*, vol. 19, no. 4, pp.9-30.
- Desormeaux, D, 1998, 'New world order', *CMA Management*, October, 28-33.
- Gable, G, Sedera, D, & Chan, T 2008, 'Re-conceptualizing information system success: the IS-Impact Measurement Model', *Journal of the Association for Information Systems*, vol. 9, no. 7, pp.377-408.
- Galani, D, Gravas, E, & Stavropoulos, A, 2010, 'The impact of ERP systems on accounting processes. World Academy of Science', *Engineering and Technology*, vol. 66, pp.418-423
- Galbraith, JR, 1973, 'Designing complex organizations', Addison-Wesley Publishing Company

- Galbraith, JR, 1977, 'Organization Design. Addison-Wesley Publishing Company
- Hair, JF, Black, WC, Babin, BJ, & Anderson, RE, 2010, 'Multivariate Data Analysis' Seventh Edition. Prentice Hall, Upper Saddle River, New Jersey.
- Ifinedo, P, 2008, 'Impacts of business vision, TMS, and external expertise on ERP success', *Business Process Management Journal*, vol. 14, no. 4, pp.551-568
- Ismail, NA, 2009, 'Factors influencing AIS effectiveness among manufacturing SMES: Evidence from Malaysia', *The Electronic Journal on Information Systems in Developing Countries*, vol. 38, no. pp.10, 1-19
- Ismail, NA & King, M, 2007, 'Factors Influencing the Alignment of Accounting Information Systems in Small and Medium Sized Malaysian Manufacturing Firms', *Journal of Information Systems and Small Business*, vol. 1, no. 1/2, pp.1-19.
- Laudon, KC, & Laudon, JP, 2009, 'Essentials of Management Information Systems', (8th ed.). Upper Saddle River: Pearson Prentice Hall.
- McLeod Jr, R, & Schell, GP, 2007, 'Management Information System. New Jersey', Pearson Education Inc. 314
- Markus, ML, & Tanis, C, 2000, 'The enterprise systems experience-from adoption to success. Framing the domains of IT research, Glimpsing the future through the past, vol. 173.
- Mearian, L & Songini, ML, 2001, 'Canadian Supermarket Chain Abandons SAP's Retail Software.

- Noudoostbeni, A, Ismail, NA, Jenatabadi, HS, & Yasin, NM, 2010, 'An effective end-user knowledge concern training method in enterprise resource planning (ERP) based on critical factors (CFs) in Malaysian SMEs', *International Journal of Business and Management*, vol. 5, no. 7, pp.167-194.
- Nabizadeh, SM, & Omrani, SA, 2014, 'Effective Factors on Accounting Information System Alignment; a Step towards Organizational Performance Improvement', *International Journal of Scientific and Research Publications*, vol. 4, no. 9, p1.
- Sabherwal, R, Jeyaraj, A, & Chowa C, 2006, 'Information System Success: Individual and Organizational Determinants', *Management Science*, vol. 52, no. 12, pp.1849-1864.
- Salehi, M, Rostami, V, & Mogadam, A, 2010, 'Usefulness of accounting information system in emerging economy: empirical evidence of Iran', *International Journal of Economics and Finance*, vol. 2, no. 2, pp.186–195.
- Scapens, RW, & Jazayeri, M, 2003, 'ERP systems and management accounting change: opportunities or impacts? A research note', *European accounting review*, vol. 12, no. 1, pp.201-233.
- Sedera, D, Gable G, & Chan T, 2003, 'Measuring enterprise systems success: A preliminary model', In Proceedings of the 9th AMCIS, Tampa, Florida
- Sekaran, U & Bougie, R, 2012, 'Research Methods for Business: A Skill-Building Approach', 6th Edition, Wiley, New York.
- Thong, JYL, 2001, 'Resource constraints and information systems implementation in Singaporean small businesses', *Omega*, vol. 29, no. 2, pp.143 – 156.

- Thong, JYL, Yap Chee-Sing, K.S. Raman, 1996, 'Top management support, external expertise and information systems implementation in small businesses', *Information Systems Research*, vol. 7, no. 2 pp.248 – 267
- Wang, ET, & Chen, JH, 2006, 'Effects of internal support and consultant quality on the consulting process and ERP System Quality', *Decision support systems*, vol. 42, no. 2, pp.1029-1041.
- Young, R, & Jordan, E, 2008, 'Top Management Support Mantra or necessity?', *International Journal of Project Management*, vol. 26, no. 7, pp.713-725.