IPBJ Vol. 1 (1), 1 - 16, (2009)

ERPS-MANAGEMENT ACCOUNTING PRACTICES FIT, ANTECEDENTS, AND USER SATISFACTION

WAN M NAZIF W M NORI
NOOR AZIZI ISMAIL
ROSLIZA MAT ZIN

ABSTRACT

Fit between system functionality and task requirements is important for realising full benefit of the information system and eventually, ensuring its success. Maximising the benefits of complex integrated information systems such as enterprise resource planning systems (ERPS) is significant due to involvement of huge amount of money and time. Despite the increasing number of research on ERPS and management accounting, investigation of these two domains from the fit perspective is limited. Many studies investigating the fit of specific information systems at the individual level have adopted task-technology fit (TTF) as their base. This paper discusses the adoption of TTF in a study to investigate the specific fit between ERPS and management accounting practices. Relevant literature was reviewed to develop a specific framework for the study. The framework is a combination of two separate diagrams depicting two separate groups of testing. The framework consists of adaptation, integration, computer self-efficacy, user participation, ERPS-MAP Fit, and user satisfaction. Hypotheses and implications of this study are also discussed.

Keywords: *Enterprise resource planning systems; management accounting practices; task-technology fit; ERPS-MAP fit.*

Introduction

Fit between what are required by users and what are offered by information systems has been found a critical condition for information systems success. Thus, it is an important aspect that needs to be looked into by existing as well as potential information systems adopters. At the same time, system designers too must not underestimate the importance of the fit and make the necessary effort to ensure that their information systems meet users' requirements the most. Since the last two decades, information systems have evolved from disintegrated information systems to integrated information systems. One of the popular integrated information systems which continue to receive attention from businesses and is being considered as the price

of entry of current businesses is enterprise resource planning systems (ERPS). Due to its complexity and significant impact on businesses, ERPS has been the subject of research in various disciplines including accounting. Investigating ERPS in relation to accounting is significant as the latter is the first business function that benefited from information systems. In addition, management accounting function in particular has been used as a source of decision making and planning in businesses. Despite its significance to the information systems success, fit has been under-researched either in ERPS studies alone or in studies involving ERPS and management accounting.

Most studies evaluating specific information systems at the individual level have adopted Goodhue's (1995) task-technology fit (TTF) as their base. TTF has been empirically tested and provides a strong diagnosis tool to evaluate whether information systems meet user requirements when decomposed into its more detailed components. Thus, this paper discusses the development of specific framework based on TTF for a study examining the fit between ERPS and management accounting practices. Literature related to TTF, the background, and components of the framework are reviewed in the following section. The next section explains research questions that was addressed in the study. This is followed by a discussion of theoretical framework and hypotheses of the study. Finally, the discussion and conclusion are made in the last section.

ERPS and Management Accounting Practices

ERPS has been found to benefit management accounting practices (MAP). Doran and Walsh (2004) conducted a survey on Irish companies to evaluate the effect of ERPS implementation on MAP. The authors found that on 10 listed newer management accounting practices, the respondents have identified Customer Profitability Analysis, Non-Financial Performance Measures, ABC, Quality Cost Analysis, and Target Costing as the top five that were supported by ERPS. Spraakman (2005) conducted a similar but more specific study. The author surveyed Canadian companies to investigate the impact of ERPS on capital budgeting. The author concluded that without fundamental changes, ERPS allows capital budgeting, budgeting, operating statements, forecasting, performance measurement, and costing to be more detailed, more accurate, and quickly reported.

Despite the above mentioned ERPS benefits on management accounting, several other authors found contradicting results. Using a questionnaire survey of 800 largest Australian corporations, Booth, Matolosy, and Wieder (2000) examined users' opinions on ERPS impact on transaction processing, reporting, and decision support. They found that while it is effective for

transaction processing, ERPS is less useful for reporting and decision support. The authors also concluded that ERPS is not the driver for new accounting practices. Granlund and Malmi (2002) conducted an exploratory field study of 10 companies in Finland. The authors found that while current MAP like ABC and BSC were used outside the ERPS, the traditional MAP such as budgeting and forecasting experienced only minor changes. In addition, Scapens and Jazayeri (2003) found in the studied company that SAP is used directly only by lower level managers. More senior managers do not use SAP directly as their required information is analysed in spreadsheets after being extracted from SAP.

Task-Technology Fit

Task-Technology Fit (TTF) is defined as the extent that technology functionality matches task requirements and individual abilities (Goodhue, 1995, p. 1829). Goodhue and Thompson (1995) tested their original TTF on general information systems using a comprehensive model known as Technology-to-Performance Chain (TPC). The model consists of system characteristics, task characteristics, and individual characteristics as the antecedents of TTF; the TTF construct and performance impact as the outcome variable. However, for simplicity purpose, the authors excluded individual characteristics from the testing model.

TTF is conceptualised as fit-as-moderation, one of the six perspectives of fit suggested by Venkatraman (1989). Under fit-as-moderation perspective, TTF is operationalised as an interaction, that is, TTF is statistically derived as an interaction relationship between system or technology characteristics and task characteristics. TTF is measured based on user evaluation of eight fit factors, namely, data quality, locatability, authorisation, compatibility, timeliness, reliability, ease/training, and relationship. The model posits that TTF predict individual performance impact, and system characteristics and task characteristics are the determinants of TTF. It was found that TTF is positively linked to individual performance impact. In addition, system characteristics and task characteristics were found as the determinants of TTF.

Goodhue and Thompson (1995) suggested that their TTF could be used as a basis for a strong diagnostic tool to evaluate whether information systems in a given organisation are meeting user needs. Many information systems researchers have adopted TTF to examine fitness of their specific information systems. Examples are group support systems (Zigurs & Buckland, 1998), police mobile computing (Ioimo & Aronson, 2003), unified

modeling language (Grossman, 2003), software maintenance tools (Dishaw & Strong, 2003), world wide web (D'Ambra & Wilson, 2004), project management software (Bani Ali, 2005), intranet (Norzaidi, Chong, Murali, & Intan Salwani, 2007), Customer Relationship Management Systems (Ledbetter, 2007), and ERPS (Smyth, 2001; Holsapple, Wong, & Wu, 2005; Kositanurit, Ngwenyuma, & Osei-Bryson, 2006). Several of these studies conceptualised their TTF as fit-as-matching. Fit-as-matching and fit-as-moderation are two most popular and commonly used perspectives of fit mentioned in accounting and information systems literature (Ismail & King, 2005). With fit-as-matching perspective, fit is defined as a match between two related variables and being specified without reference to the third variable (Venkatraman, 1989). Other perspectives are still in their exploratory stages and thus require further development (Cragg, King, & Hussin, 2002).

Determinants of ERPS-MAP Fit

As discussed in the previous section, Goodhue (1995), and Goodhue and Thompson (1995) tested TTF in general information systems with system characteristics and task characteristics as the determinants of TTF. They found that both system characteristics and task characteristics determine TTF. This present study examines the specific TTF of ERPS-MAP Fit. Thus, this section explores specific determinants of ERPS-MAP Fit from ERPS characteristics and individual characteristics aspects.

ERPS Characteristics

One of the well known characteristics of ERPS is configurability. According to Klaus, Roseman, and Gable (2000), in order to accommodate the diverse needs of users in most industries, ERPS is designed with high configurability. Hong and Kim (2002), and Parthasarathy and Anbazhagan (2007) looked at configurability in ERPS implementation in terms of ERPS adaptation and process adaptation.

ERPS adaptation refers to the activities of adjusting and changing ERPS to fit the existing organisational requirements. On the other hand, process adaptation refers to the adjustments, and changes in existing business processes to fit the best practices embedded in ERPS. With regard to the adjustments and changes to ERPS, Hong and Kim (2002) categorised it into customisation, extension, and modification. Customisation involves choosing among the reference processes and set the parameters in ERPS without changing the system code. ERPS extensions utilise the "user exit" function for local code, a specialised programming language, and third-party bolt-on software to fill the gap between ERPS functionality

and organisational requirements. In contrast, ERPS modification changes the ERPS code. The authors, however, restricted their ERPS adaptation to extension and modification as they argued that customisation does not change the basic entity of ERPS.

Generally, organisations prefer to go for ERPS adaptation rather than process adaptation. This is due to the fact that process adaptation may require organisations to significantly depart from their existing and familiar processes (Hong & Kim, 2002). Even though ERPS adaptation is being preferred by organisations, it is not strongly recommended by ERPS vendors, especially if it involves the change in ERPS source code. Changing ERPS source code can be very costly, difficult for future upgrade, and have unstable core application (Soh, Kien, & Tay-Yap, 2000).

Another distinct characteristic of ERPS is integration. Scapens and Jazayeri (2003) adopted a case study approach to investigate the implementation of SAP, the leading ERPS software, by BM (Europe), a large US multinational company, and found that integration was one of the important characteristics of ERPS. According to Esteves and Pastor (2001), ERPS packages interconnect modules such as human resources, sales, finance, and production, and provide cross-organisational integration of data and business processes. Once data are entered into the ERPS, it could be shared across an entire value chain in the firm (Chung & Snyder, 2000). Information integration of ERPS could be further understood from the following statement by Davenport (1998, p. 121):

> *Enterprise systems (ES) promise the seamless integration of all the information flowing through a company – financial and accounting information, human resource information, supply chain information, customer information.*

According to Scapens, Jazayeri, and Scapens (1998), SAP enables direct integration of accounting modules with other modules, and a common database ensures consistent information for all purposes. Davenport, Haris, and Cartrell (2004) added that integration in enterprise systems such as ERPS involves the integration of systems of disparate best-of-breed vendors, between ERPS packages, and existing legacy systems, and also inter-organisational business processes (examples, customers, suppliers, and business partners). Siau and Messersmith (2002) stated that in order to unlock the full benefits of ERPS, the systems adopters should integrate with suppliers and customers in full supply chain management (SCM) via the internet, intranet and extranets. Similarly, Somers and Nelson (2003) concluded that in order for firms to ensure that their information systems are in alignment with their business strategies, the information systems must be better integrated with the firms' business plans.

Individual Characteristics

Computer self-efficacy (CSE) is a popular individual characteristic that has been investigated in information systems research. It relates to the Social Cognitive Theory, an established and empirically validated model of individual behaviour by Bandura (1986). Bandura (1986) related one of the primary determinants of individual behaviour to "self-efficacy" or beliefs about one's ability to perform a particular behaviour. The author explained that self-efficacy is not about the skills that one has but about measuring people's judgments of what they can do with the skills they possess. CSE is derived from this self-efficacy construct (Hung & Liang, 2001) and is defined as individual's belief about his or her ability to competently use computer (Compeau & Higgins, 1995). Another individual characteristic considered to be critical to information systems implementation is user participation (Barki & Hartwick, 1994). User participation refers to the extent to which non-information systems members of an organisation are engaged in activities related to systems development (Robey, Farrow, & Franz, 1989). Since the beginning of 1960s, researchers have studied user participation, convinced of its influence on key criteria such as systems quality, user satisfaction, and systems use (Ives & Olson, 1992).

Many other researchers have studied user participation in system development as an important ingredient for system success (Guimaraes, Staples, & McKeen 2003; Hwang & Thorn, 1999; Wu & Marakas, 2006). Wu and Marakas (2006) used the extent and degree of participation as the dimensions of user participation. They found that the participation of end users who are not assigned any formal project development responsibility still has a significant influence on perceived participation which in turn, has a significant influence on intention to use, process satisfaction, and perceived ownership. Guimaraes et al. (2003) differentiated user participation from user involvement and empirically tested each of them against system quality. They concluded that while user participation is directly related to system quality, user influence has only an indirect effect on system quality.

In a more recent study, Wagner and Newell (2007) examined how timing of user participation impacts ERPS success. They found that user participation is as important, if not more, in the post implementation period as in preceding periods. Kawalek and Wood-Harper (2002) investigated the impact of user participation on SAP, a popular ERPS package. They found that user participation helps project management to learn about local issues that may present a challenge to the project and some of the issues will necessitate the configuration of SAP. This is supported by Mumford (1983c) who concluded that involving users in design decisions will result in information systems that take account of people's social as well as technical needs and so be more effective.

With regards to the measurement of user participation, many authors have used the instrument proposed by Doll and Torkzadeh (1988). The authors proposed an eight-item measure of end-user software involvement that asked users to assess the amount of time they spent in each of the eight development activities. Examples of such activities are project initiation, determining systems objectives and user information needs, and developing input/output forms.

The Outcome Variable of ERPS-MAP Fit

The outcome variable of original TTF is performance impact. However, Goodhue and Thompson (1995) measured performance impact by perceived performance impact since objective measures of performance were unavailable in their field context. Other than individual performance, user satisfaction is also a surrogate of system success (DeLone & McLean, 1992). In fact, user satisfaction is regarded as the best assessment of system success (Seddon & Kiew, 1994). In the context of ERPS, this has been validated by Wu and Wang (2006). User satisfaction refers to "the affective attitude towards a specific computer application by someone who interacts with the application directly" (Doll & Torkzadeh, 1988, p. 261). Earlier, Ives, Olson, and Baroudi (1983) defined user satisfaction as the sum of one's feelings and attitudes toward a variety of factors related to the delivery of information products and services. Holsapple et al. (2005) tested user satisfaction against user characteristics and fitness factors in ERPS environment. The authors used ERPS project team, ERPS product and, knowledge and involvement as the three dimensions of user satisfaction. Doll and Torkzadeh (1988) developed an established and well accepted end-user computing satisfaction (EUCS) instrument. They measured EUCS using five dimensions of content, accuracy, format, ease of use, and timeliness.

Research Questions

The review of relevant literature in the previous section have revealed the significance of fit between information systems and business requirements for the information systems success. Most studies evaluating specific information systems from the fit perspective at the individual level have adopted Goodhue's (1995) TTF as their base. Despite the importance of fit in information systems research, studies of the fit between ERPS and MAP are found to be underresearched. Such study is critically required due to inconsistent findings reported by previous studies investigating the benefits of ERPS on management accounting. In addition, common terms used for the reported benefits were "little or moderate". High realisation of benefit is important in ERPS implementation because it involves a huge investment

of money and time (Davenport, 1998; Shehab, Sharp, Supramaniam, & Spedding 2004). This study proposed the adoption of Goodhue (1995)'s TTF as a basis to address the following research questions: To what extent ERPS fits management accounting practices? Does the fit predict user satisfaction? What are the factors that determine the fit?

Theoretical Framework and Hypotheses

Based on the review of relevant literature discussed in the previous sections, the theoretical framework for the present study is proposed in this section. Goodhue's (1995) TTF is adopted as the basis for developing this theoretical framework as the fit is examined at the individual level. This study posited that the fit between ERPS and management accounting practices, represented by ERPS-MAP Fit, has significant and positive impact on user satisfaction. The ERPS-MAP Fit is conceptualised as fit-as-matching, one of the six perspectives of fit suggested by Venkatraman (1989). This particular perspective of fit is embraced as the level of ERPS-MAP Fit is determined by matching the ERPS and MAP without referring to user satisfaction. Goodhue (1995), and Goodhue and Thompson (1995) tested TTF against individual performance. This study tested ERPS-MAP Fit against user satisfaction. Both individual performance and user satisfaction are measures of systems success (Delone & Mclean, 1992). Nevertheless, user satisfaction is selected as the outcome variable of this study because of its high degree of face validity, availability of reliable instruments, and weaknesses of other measures (DeLone & McLean, 1992). Goodhue (1995), and Goodhue and Thompson (1995) conceptualised system characteristics, task characteristics, and individual characteristics as determinants of TTF. However, the authors simplified their TTF testing model by ignoring the individual characteristics. In the context of ERPS, two identified distinct characteristics of ERPS are adaptation and integration, while the relevant individual characteristics are user participation and computer self-efficacy (CSE). Thus, this study argued that adaptation, integration, CSE, and user participation have a significant positive impact on ERPS-MAP Fit. According to Strong, Dishaw, and Bandy (2006), the inclusion of individual characteristics in ERPS-MAP Fit is important because there is increasing evidence that individual differences affect users' choices about technology and it is supported by work adjustment theory from which the TTF construct was originally formulated. The ideas presented above are formulated in the proposed theoretical framework, shown in Figure 1.

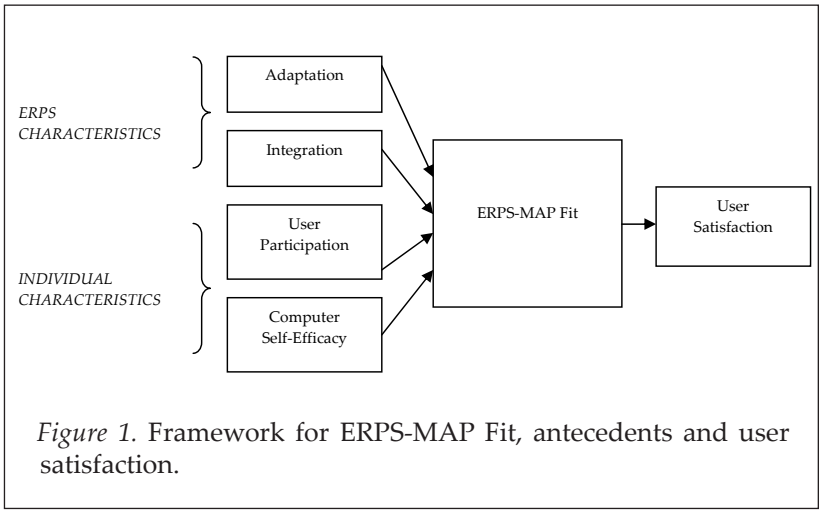

Figure 1. Framework for ERPS-MAP Fit, antecedents and user satisfaction.

Adaptation and ERPS-MAP Fit

Davenport (1998) stated that either business processes or the ERPS must be changed when there is a misfit between the organisation and ERPS. Similarly, Themistocleous and Corbitt (2006) stated that companies have two approaches to make the system support existing business processes, which are: (1) to change the software to fit the organisation, or (2) to change the organisation to fit the process. The importance of both types of adaptation in ensuring the fit between business requirements and ERPS functionality is supported by Davenport (1998). Hong and Kim (2002) evaluated the impact of data, process and user fit between ERPS and organizational requirements on implementation success. According to Lassila and Brancheau (1999), such fit could only be achieved through the mutual adaptation of ERPS and organisational processes. Thus, the relationship between adaptation and ERPS-MAP Fit was hypothesised in this study as follows:

H1: There is a significant positive relationship between adaptation and ERPS-MAP Fit.

Integration and ERPS-MAP Fit

The importance of system integration in helping the organisation to achieve its goals has been mentioned by many researchers. Siau and Messersmith (2002) stated that the integration of ERPS and E-Commerce enables manufacturers to enhance customer relations,

tighten relationships with suppliers, and improve their ability to make intelligent business decisions based upon raw data. Somers and Nelson (2003) highlighted the case of Wal-Mart to explain the successful "marriage" of ERPS and supply chain management (SCM). Firstly, Wal-Mart linked its internal systems by automating the tracking of its inventory system. Then, to achieve total integration, it linked its ERPS to that of its customers and suppliers. Later, the integration was on the supply side of value chain using SCM. This has positioned the company to achieve profitable relationships with its customers and suppliers. In another study, Chapman and Kihn (2008) found a direct association between information system integration and perceived system success. Based on the above discussion, it is expected in this study that ERPS integration affects the fit between ERPS and management accounting practices. Thus, the relationship between ERPS integration and ERPS-MAP Fit was hypothesised as follows:

H2: There is a significant positive relationship between integration and ERPS-MAP Fit.

CSE and ERPS-MAP Fit

According to Bani Ali (2005), users with higher CSE will be able to turn the technology around to fit the requirements of their work. As a result, the author found that users with higher CSE believe that the PM software they used provide them with the functionality that they need for their work. Hung and Liang (2001) concluded that an executive with high CSE may be willing to learn and use a system even if it is difficult, while an executive with low CSE would be less likely to do so. Similarly, Bandura (1986) postulated that an individual with higher self-efficacy is more likely to accept more challenging tasks and more challenging situations than those who judge themselves as ineffective. Thus, it is expected in this study that CSE has a significant positive relationship with ERPS-MAP Fit and was hypothesised as follows:

H3: There is a significant positive relationship between CSE and ERPS-MAP Fit.

User Participation and ERPS-MAP Fit

Wu and Marakas (2006) suggested that without assigning overall responsibility, user participation can still be highly effective in influencing factors associated with overall system success. Hwang and Thorn (1999) found a medium positive correlation between user participation and system quality, use, user satisfaction, and organisational impact. Ives and Olson (1992) proposed that by participating, users can provide a more accurate

and complete assessment about users' requirements, and consequently lead to the development of quality and acceptable information systems. Dewulf and Meel (2002) highlighted that end-users help designers to enhance the work process and meet users' needs and requirements. Based on the above discussion, it was proposed in this study that user participation has a significant and positive relationship with ERPS-MAP Fit.

H4: There is a significant positive relationship between user participation and ERPS-MAP Fit.

ERPS-MAP Fit and User Satisfaction

ERPS that fail to fit user requirements leads to low user satisfaction (Soh et al., 2000). In a later study, Holsapple et al. (2005) examined the relationship between fitness factors and user satisfaction in ERPS context. The authors tested three fitness factors, namely, package localisation, compatibility, and task relevance, individually against user satisfaction. It was found that compatibility and task relevance are significantly, positively associated with user satisfaction while localisation is not. In a more recent study, Leclercq (2007) found that the fit between user needs and the information systems is a determinant of user satisfaction. Thus, the following hypothesis between ERPS-MAP Fit and user satisfaction was proposed in the present study as;

H5: There is a significant positive relationship between ERPS-MAP Fit and user satisfaction.

Discussion and Conclusion

This paper discusses the development of theoretical framework to examine the specific fit between ERPS and management accounting practices. Being developed based on Goodhue's (1995) TTF, the framework was also proposed to test the relationships among the fit, user satisfaction, adaptation, integration, user participation, and computer self-efficacy. Academically, this study adds to the existing TTF and information systems literature by verifying the TTF concept in specific domains of ERPS and management accounting practices. Goodhue and Thompson (1995) tested the original TTF in general information systems. Though many studies have tested TTF in various specific information systems, only a limited number of them examined TTF for specific business or task functions. In addition, most of TTF-based studies have examined fit from the fit-as-moderation perspective. By examining the ERPS-MAP Fit from the fit-as-matching perspective, this study enables comparison between different perspectives of fit to be made. Literature encourages researchers to test different perspectives of fit (Cragg et al., 2002).

As far as the practical contribution is concerned, this study provides input of which management accounting practices are highly, moderately, less or not supported at all by ERPS. The management of existing as well as potential ERPS adopting organisations could use this input to strategically plan their ERPS adoptions. Despite adopting comprehensive ERPS, some organisations may perform certain tasks using disintegrated software outside ERPS without knowing that the particular tasks could actually be performed better with ERPS. It is important for organisations to benefit the most from their ERPS investments because such ventures involve huge amounts of time and money. Findings about the level of ERPS-MAP Fit would help the management to focus and give priority to MAP that ERPS supports the most. At the same time, an appropriate and cost-effective training programme for ERPS-MAP Fit could be developed. In addition, investigation of the relationships between the antecedents (i.e., adaptation, integration, CSE, and user participation) and the fit provides insights about factor/s that positively affect ERPS-MAP Fit. The management and vendors could take the necessary action with regard to adaptation, integration, CSE, and user participation, to improve the fit. Lastly, the investigation of user satisfaction as the outcome variable helps to clear doubts among ERPS users. Many users resist new information systems due to uncertainty surrounding its adoption.

References

Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.

Bani Ali, A.S. (2005). *An assessment of the impact of the fit among computer self-efficacy, task characteristics and system characteristics on performance and information system utilisation*. (Unpublished doctoral dissertation). The George Washington University.

Barki, H., & Hartwick, J. (1994). Measuring user participation, user involvement, and user attitude, *MIS Quarterly*, *18*(1), 59-82.

Booth, P, Matolcsy, Z., & Wieder, B. (March, 2000). *Integrated information systems (ERP systems) and accounting practices: The Australian experience.* Paper presented at the EAA 23rd Annual Congress, Munich, German.

Chapman, C. S., & Kihn, L. (2008). Information system integration, enabling control and performance. *Accounting, Organisation and Society*, doi:10.1016/j.aos.2008.07.003.

Chung, S.H., & Snyder, C.A. (2000). ERP adoption: A technological evolution approach. *International Journal of Agile Management Systems*, *2*(1), 24-32.

Compeau, D.R., & Higgins, C.A (1995). Applications of social cognitive theory to training for computer skills. *Information System Research*, *6*(2), 118-43.

Cragg, P. B., King, M., & Hussin, H. (2002). IT alignment and firm performance in small manufacturing firms, *Journal of Strategy Information Systems 11*, 109-32.

Davenport, T.H. (1998). Putting the enterprise into the enterprise system. *Harvard Business Review*, *76*(4), 121-31.

Davenport, T.H., Harris, J. G., & Cantrell, S. (2004). Enterprise systems and ongoing process change. *Business Process Management Journal*, *10*(1), 16-26.

DeLone, W. H., & McLean, E. R. (1992). Information system success: The quest for the dependent variable. *Information System Research*, *3*(1), 60-95.

Dewulf, G., & Meel, J. V. (2002). User participation and the role of information and communication technology. *Journal of Corporate Real Estate*, *4*(3), 237-247.

D'Ambra, J., & Wilson, C. S. (2004). Use of the World Wide Web for international travel: Integrating the construct of uncertainty in information seeking and the task-technology fit (TTF) model. *Journal of the American Society for Information Science and Technology*, *55*(8), 731-42.

Dishaw, M.T., & Strong, D.M. (2003). The effect of task and tool experience on maintenance case tool usage. *Information Resources Management Journal*, *16*(3), 1-16.

Doll, W.J., & Torkzadeh, G. (1988). The measurement of end-user computing satisfaction. *MIS Quarterly*, *12*(2), 259-274.

Doran, J., & Walsh, C. (2004). The effect of enterprise resource planning (ERP) systems on accounting practices in companies in Ireland. *The Irish Accounting Review, 11*(2), 17.

Esteves, J., & Pastor, J. (2001). Enterprise resource planning systems research: An annotated bibliography. *Communication of the Association for Information Systems*, *7*(8), 1-52.

Goodhue, D.L. (1995). Understanding user evaluations of information systems. *Management Science*, *41*(12), 1827-1844.

Goodhue, D.L., & Thompson, R.L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, *19*, 213-233.

Granlund, M., & Malmi, T. (2002). Moderate impact of ERPS on management accounting: A lag or permanent outcome? *Management Accounting Research, 13*, 299-321.

Grossman, M. (2003). *The effect of individual and task characteristics on unified modeling language use: A task-technology fit perspective*. (Unpublished doctoral dissertation). Nova Southeastern University.

Guimaraes, T., Staples, D. F., & McKeen, J. D. (2003). Empirically testing some main user-related factors for systems development quality. *The Quality Management Journal*, *10*(4), 39-54.

Holsapple, C. W., Wang, Y., & Wu, J. (2005). Empirically testing user characteristics and fitness factors in enterprise resource planning success. *International Journal of Human-Computer Interaction*, *19*(3), 323-342.

Hong, K. K., & Kim, Y. G. (2002). The critical success factors for ERP implementation: An organisational fit perspective. *Information and Management*, *40*(1), 25-40.

Hung, S., & Liang, T. (2001). Effect of computer self-efficacy on the use of executive support systems. *Industrial Management and Data Systems*, *101*(5/6), 227.

Hwang, M. I., & Thorn, R. G. (1999).The effect of user engagement on system success: A meta-analytical integration of research findings. *Information and Management*, *35*(4), 229-236.

Ioimo, R. E., & Aronson, J. E. (2003). The benefits of police field mobile computing realized by non-patrol sections of a police department. *International Journal of Police Science and Management*, *5*(3), 195-206.

Ives, B., Olson, M. H., & Baroudi, J. J. (1983). The measurement of user information satisfaction. *Communications of the ACM*, *26*(10), 785-793.

Ives, B., & Olson, M.H. (1992). User involvement and MIS success. *Management Science*, *30*(5), 586-603.

Ismail, N.A., & King, M. (2005). Firm performance and AIS alignment in Malaysian SMEs. *International Journal of Accounting Information Systems*, *6*, 241-259.

Kawalek, P., & Wood-Harper, T. (2002). The finding of thorns: User participation in enterprise system implementation. *Database for Advances in Information Systems*, *33*(1), 13-22.

Klaus, H., Rosemann, M., & Gable, G. G. (2000). What is ERP? *Information Systems Frontiers*, *2*(2), 141-162.

Kositanurit, B., Ngwenyama, O., & Osei-Bryson, K. (2006). An exploration of factors that impact individual performance in an ERP environment: An analysis using multiple analytical techniques. *European Journal of Information Systems*, *15*, 556-568.

Lassila, K.S., & Brancheau, J.C. (1999). Adoption and utilisation of commercial software packages: Exploring utilisation equilibria, transitions, triggers, and tracks. *Journal of Management Information Systems*, *16*(2), 63-90.

Ledbetter, M. L. (2007). *An empirical study of the task-technology fit of customer relationship management systems.* (Unpublished doctoral dissertation). Nova Southeastern University.

Leclercq, A. (2007). The perceptual evaluation of information systems using the construct of user satisfaction: Case study of a large French group. *Database for Advances in Information Systems*, *38*(2), 27-60.

Norzaidi, M. D., Chong, S. C., Murali, R., & Intan Salwani, M. (2007). Intranet usage and managers' performance in the port industry. *Industrial Management and Data Systems*, *107*(8), 1227-1250.

Parthasarathy, S., & Anbazhagan, N. (2007). Evaluating ERP implementation choices using AHP. *International Journal of Enterprise Information Systems*, *3*(3), 52-65.

Redouane, E. A., Frantz, R., & Benedicte, G. (2006). The effects of enterprise resource planning implementation strategy on cross-functionality. *Information System Journal*, *16*, 79-104.

Robey, D., Farrow, D. L., & Franz, C. R. (1989). Group process and conflict in system development. *Management Science*, *35*(10), 1172-1191.

Shehab, E. M., Sharp, M. W., Supramaniam, L., & Spedding, T. A. (2004). Enterprise resource planning: An integrative review. *Business Process Management Journal*, *10*(4), 359.

Scapens, R., Jazayeri, M., & Scapens, J. (1998). SAP: Integrated information systems and the implications for management accountants. *Management Accounting*, *September*, 46-48.

Scapens, R.W., & Jayazeri, M. (2003). ERP systems and management accounting change: Opportunities or impacts? A research note. *European Accounting Review*, *12*(1), 201-33.

Seddon, P. B., & Kiew, M. Y. (1994). A partial test and development of the DeLone and McLean model of IS success. *Proceedings of the International Conference on Information Systems* (pp. 99-110). Vancouver, Canada.

Siau, K., & Messersmith, J. (2002). Enabling technologies for e-commerce and ERP integration. *Quarterly Journal of Electronic Commerce*, *3*(1), 43-52.

Smyth, R. W. (June, 2001). *Challenges to successful ERP use, global co-operation in the new millennium*. Paper presented at the 9th European Conference on Information Systems, Bled, Slovenia.

Somers, T.M., & Nelson, K.G. (2003). The impact of strategy and integration mechanisms on enterprise system value: Empirical evidence from manufacturing firms. *European Journal of Operational Research*, *146*, 315-338.

Soh, C., Kien, S. S., & Tay-Yap, J. (2000). Cultural fit and misfit: Is ERP a universal solution? *Communications of the ACM*, *43*(4), 47-51.

Spraakman, G. (2005). *The impact of enterprise resource planning systems on management accounting: Some Canadian findings and suggestions for future research.* (Unpublished doctoral dissertation). York University.

Strong, D. M., Dishaw, M. T., & Bandy, D. B. (2006). Extending task technology fit with computer self-efficacy. *Database for Advances in Information Systems*, *37*(2/3), 96-107.

Themistocleous, M., & Corbitt, G. (2006). Is business process integration feasible? *Journal of Enterprise Information Management*, *19*(4), 434-449.

Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review*, *14*(3), 423-444.

Wagner, E. L., & Newell, S. (2007). Exploring the importance of participation in the post-implementation period of an ES project: A neglected area. *Journal of The Association for Information Systems*, *8*(10), 508-524.

Wu, J. B., & Marakas, G. M. (2006). The impact of operational user participation on perceived system implementation success: An empirical investigation. *The Journal of Computer Information Systems*, *46*(5), 127-140.

Zigurs, I., & Buckland, B. K. (1988). A theory of task/technology fit and group support systems effectiveness. *MIS Quarterly, 22*(3), 313-334.