

IMPACT FACTORS FOR BUSINESS SYSTEM SUCCESS

Mohammed Alattas, Faculty of Engineering & IT, University of Technology Sydney,
Mohammed.I.Alattas@student.uts.edu.au

Kyeong Kang, Faculty of Engineering & IT, University of Technology Sydney,
Kyeong.Kang@uts.edu.au

Osama Sohaib, Faculty of Engineering & IT, University of Technology Sydney,
Osama.Sohaib@uts.edu.au

Abstract

In most organizations, knowledge sharing is often lacking when it comes to business systems success. This paper investigates factors affecting business systems success in Saudi organisations. Data were collected from private organisations in Saudi Arabia and Partial Least Square approach has been applied to analyse the data. The results show that organisational culture influence knowledge sharing towards business systems success. In addition, both intrinsic motivation and perceived usefulness has positive influence on business system success. This indicates that business system success is built upon the concept of knowledge sharing and user motivation.

Keywords: Business systems, organisation culture, knowledge sharing, perceived usefulness, intrinsic motivation

1 INTRODUCTION

The importance of the organization culture is critical to the success of business systems implementation. There is even more need in Saudi Arabia organizations where a number of other factors can influence the success of business systems success such as knowledge sharing. The academic debate on the role of culture within the business environment highlights the crucial role of culture as a way of improving the new business systems (Juntiwarakij 2008). Stakeholders need to ensure that the culture of the organization is well understood, particularly in the Saudi context, which is often problematic (Adlan and Have 2012; Al-Adaileh and Al-Atawi 2011; Eid and Nuhu 2011). The cultural setting of Saudis is actually Arab and Muslim. It is widely known that the Saudi setting has a unique culture and heritage, which has been preserved since the inception of the culture (Eid and Nuhu 2011). Visitors to Saudi, including non-Saudis, are subjected to the same rigorous Islamic law as Saudis. In this regard, different enterprises in Saudi are to a greater extent influenced by the cultural aspects of the Saudi community. When it comes to hiring employees in the enterprises, there will be a clear stipulation that employees, whether of Saudi origin or otherwise, will be governed by similar policies and will follow similar requirements for their enterprises. Differences in culture exist in Saudi enterprises, and these differences in values, beliefs and customs will affect the diverse employees enterprises in a working atmosphere (Aleisa and Diboqlu 2010).

Understanding the success factors in implementing business systems has been a challenging process for both public and private organizations in Saudi Arabia. Business system implementation is complex in nature as it connects each functional departments of an entire firm, may take several years to go live and requires committing a significant amount of a budget and other resources (Raymond et al. 2005). According to Pabedinskaitė (2010) that the business systems complexity is not only because it incorporates the entire company but also its implementation is affected by other technical and non-technical factors. Such as organization culture, in order to increase the business system success rate, organization culture has been recognized as one of the most important success factor in the literature (Gou 2012). The impact of organization's culture on organizational actors can also mean the actors are able to not only implement the systems, but also collaborate to improve their efficiency and effectiveness. Collaboration within the organization is also considered to represent a crucial aspect affecting the overall performance of a company (Boehm 2012). Collaboration is one of the most important factors for the success of modern organizations, which can ensure they have the most robust mechanism available to them (Alston and Tippett 2004; Beauregard 2011). Collaboration needs to ensure by organizational actors in order to lead a competitive advantage for the firm (Crow and Hartman 2002). Therefore, it is important for organizational managers to have a clearer understanding of the needs of the organization and the success of business system implementation, which is increasingly important for the organization (Liu et al. 2007). The new business systems of Saudi organizations need to improve considerably and therefore there is a need for organizations to ensure collaboration can be enabled (Alston and Tippett 2004, 2009; Beauregard 2011). Much research has been done in the area of assessing information system success (Popovič et al. 2012), with the DeLone and McLean (1992) multidimensional Information Success Model for organizing the concept of information system success as being one of the most often used works. The model highlights the understanding of the connections between the different dimensions of information systems success. Such as six major dimensions of IS success – System Quality, Information Quality, Use, User Satisfaction, Individual Impact, and Organizational Impact .

Organizations need to overcome the cultural barriers and initiate appropriate culture to best facilitate knowledge sharing (Alharbi and Kang 2014; Jones 2005; Jones et al. 2006). Business systems such as ERP usually comprise of integrated modules across multiple business functions, therefore distribution of organizational knowledge is significant in building intensive knowledge platform and providing cost-effective functionalities (Hendricks 2007). Although the existing literature has examined the link between organizational culture and knowledge sharing (Jones 2005; Jones et al. 2006; Kang 2010),

and their relationship with ERP success (McGinnis and Huang 2007), little research has focused on understanding the influence of organizational culture and collaboration mechanism (knowledge sharing) towards business system success.

Literature showed that to date, in investigating the above factors, no research has been conducted in the Saudi context. Therefore, it is critical to identify various factors of business systems for a successful outcome in a Saudi firm. To achieve the goal of this research, the following research questions are addressed: (1) how does organisation culture (group culture, hierarchical culture, development culture and rational culture) impact knowledge sharing towards business system success in Saudi enterprise? (2) How does staff motivational factors influence business system success in Saudi enterprise? The study is organized as follows. The following section provides a brief literature review regarding organization culture, knowledge sharing and motivational factors. Then in the next section, a theoretical development and research model are presented. Followed by data analysis. The last section concludes the study and present future research.

2 LITERATURE REVIEW

2.1 Business System Success

Business systems are examples of large Information Systems (IS), which are assimilated throughout cross-functional departmental boundaries in an organisation (Brady et al., 2001). Business systems let an organisation (Umble et al., 2003), to assimilate organisation business processes, to automate and share information throughout the organization and to access and generate information in a real-time situation. A typical business system such as ERP lifecycle is usually described in terms of three phases: adoption, implementation and assimilation (Wu and Chuang 2010). The focus of business systems research so far has been on the adoption and implementation phase (Umble et al. 2003). Most of extant studies assess ERP success by whether the system is implemented on time and within budget, but ignore that the ultimate goal of using business systems is to create business value and enhance business performance (Shao et al. 2012). In business system integration phase, most of the essential customizations and business process reengineering are complete (Luo and Strong 2004), and the system is considered officially 'rolled out' for routine usage. However, having the system running does not routinely produce the expected benefits business operations. Most of extant studies assess ERP success by whether the system is implemented on time and within budget, but ignore that the ultimate goal of using business systems is to create business value and enhance business performance (Shao et al. 2012).

2.2 Organization Culture

According to Eid and Nuhu (2009), organisation culture affects employee collaboration, organizational functioning, and even decision making in organizational settings. Organizational learning culture is the encouraging factor that makes a business profitable by leading employees to acquire knowledge and develop innovative ideas (Hahn et al., 2013). The author empirically analyzed and found that, how organization should design organizational learning culture to improve individual creativity according to employees' working styles in South Korean firms. Mueller (2014) investigated the cultural construct of knowledge sharing between project teams and found that learning culture supports knowledge processes and employees see knowledge sharing as a natural activity in their daily business. Škerlavaj et al. (2010) describe organizational learning culture is a complex process that refers to the development of new knowledge and has the potential to change individual and organizational behaviour. According to (Škerlavaj et al. 2010) within the competing values framework (CVF) organization learning culture has four different types of cultures: group, developmental, hierarchical, and rational. The competing values framework (CVF) explores the competing demands within an organization on two axel (Denison and Spreitzer 1991; Quinn and Spreitzer 1991; McDermott and Stock 1999). The first dimension, the flexibility–stability axis, reflects the competing

demands of change and stability. The second dimension, the internal–external axis, focuses on activities happening within or outside the organization. The two axes divide organizational culture into four culture domains: a group culture, a developmental culture, a rational culture and a hierarchical culture. The group culture emphasizes flexibility and maintains a primary focus on the internal organization. Belonging, trust, attachment, cohesiveness, and participation are core values. The development culture also emphasizes flexibility and change, but maintains a primary focus on the external environment. Growth, resource acquisition, creativity, stimulation and adaptation to the external environment are core values. The rational culture emphasizes internal stability and external environment. Planning, efficiency, productivity, goal fulfilment, and achievement are core values. The hierarchical culture focuses on internal organization and stability. Internal efficiency, coordination, order, rules, control and regulations are core values.

2.3 Knowledge Sharing

In the business environment, information remains a vital element in ensuring optimal performance of the different entities within an organization. This involves collaboration between departments, employees, management and all the internal staff of the company. Effective internal collaboration within companies ensures employees remain focused and engaged in delivering various organizational goals. Collaboration both within the organization is often considered to represent a crucial aspect affecting the overall performance of a company (Boehm 2012). In essence, the practice of sharing information, experiences and resources is the key to future development, and information systems have been shown to play a vital role in enhancing the level of collaboration (Alston and Tippett 2009; Boehm 2012). Although this may be an understood concept in private organizations, in many organizations in Saudi these factors have not been well understood, and therefore can create a number of issues for organizational actors. Teamwork is also critical to the different organizations. They continue to work together to improve their effectiveness and collaboration, as part of the culture of the organization enables improvements in the efficiency of the organization (Shao et al. 2012).

Knowledge is the foundation of a firm's competitive advantage, and, ultimately, the primary driver of a firm's value (Kraaijenbrink 2010). Such as Knowledge sharing: explicit knowledge sharing and tacit knowledge sharing. According to (Shao et al. 2012), "explicit knowledge is formal and systematic, and can be achieved through readings of project manuals and team discussions, while tacit knowledge is highly personal, context-specific, subjective, and can be represented in the form of metaphors, drawings, non-verbal communications and practical expertise. It is usually difficult to articulate tacit knowledge through a formal use of language since it is expressed in the form of human actions such as evaluations, attitudes, points of view, commitments and motivation".

2.4 Motivational Factors

Previous researcher investigated the role of motivation in information systems studies, in particular in user technology acceptance (Guo et al. 2014b). For-example, studies conducted concerning the effect of motivations on enterprise systems usage (Ke et al. 2008; Gerow et al 2013; Liu et al 2011). Chang et al. (2008) identifies individual level factors, which are extrinsic motivators and intrinsic motivators that influence enterprise systems usage. In addition, Liu et al. (2011) highlighted that a strongly self-motivated user could achieve a higher level of perceived usefulness (extrinsic motivators), which motivates the user to trust and learn more about the system, and ultimately leads to higher levels of adaptation.

3. THEORETICAL DEVELOPMENT AND RESEARCH MODEL

Business systems are considered large complex information system (IS), which are integrated throughout cross-functional departmental boundaries in an organisation (Umble et al., 2003). Therefore, prior research on information systems model is reviewed to recognize the success of

business systems. The models include DeLone and McLean (D&M) IS Success Model, the Business Systems Success Measurement Model (Gable et al., 2003; Sedera et al. 2004). In previous research studies perceived usefulness and intrinsic motivation is viewed as the most important motivator toward information system use (Guo et al, 2014b; Liu et al. 2011; Chang 2008). In addition, organization culture based on Competing Values Framework (CVF) (Quinn and Spreitzer 1991 and McDermott and Stock, 1999) is reviewed for identifying the factors affecting business systems success.

Based on above theories, a model is proposed to show how organization culture, knowledge sharing and staff motivational factors contributes towards business system success in Saudi enterprise. Figure 1 shows our research model. Table 1 shows the definition of each factor used in the current study.

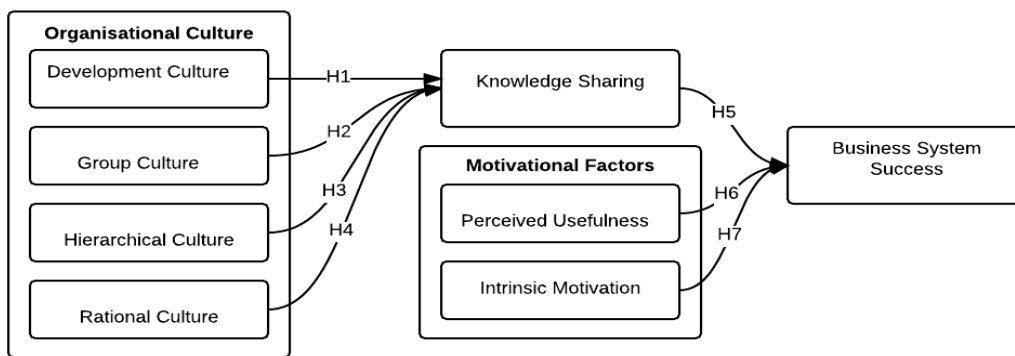


Figure 1: Research model.

Cultural types	Sub dimensions	Description	Sources
Development Culture	Innovation	The flexibility of organization towards change and encourages innovation.	(Guo 2004; Shao 2012; McDermott and Stock 1999; Škerlavaj et al., 2010)
	Adaptation	The top executive needs to facilitate a development culture that focuses on innovativeness, creativity, and adaptation to the external environment, such as the organization would tend to scan the competitive environment to assess their relative competitive strengths and weaknesses in relation to their competition and customers, and strive to make changes to their firm accordingly .	
	Growth and Resource Acquisition		
	Creativity		
Group Culture	Discussion	Employees share information and insights throughout the organization and have considerable influence over decision-making.	
	Trust	The top executive needs to promote a trust-oriented group culture that focuses on belonging and participation.	
	Participation		
Hierarchical Culture	Control	Firm standardization to achieve control.	
	Stability	Internal firm desire for a focus on change or stability; firm emphasizes on stability.	
	Rules and Regulation	A concern with formal rules and procedures.	
Rational Culture	Efficiency	The degree of importance placed on employee efficiency and productivity at work.	
	Goal fulfilment	A concern with clearly defining the goals of the organization.	
	Achievement	Firms emphasize on productivity and achievement,	

		with objectives typically well-defined and external competition a primary motivating factor.	
Knowledge sharing	Information sharing refers to the extent to which a firm shares a variety of relevant, accurate, complete, and confidential information in a timely manner. “Sharing of knowledge about business processes and the related knowledge required to make these processes work”.		(Jones et al. 2006)
Business System Success	Benefits of use and Business value: establishes the extent to which business systems are contributing to the success of the different stakeholders. Net benefits: as they capture the balance of positive and negative impacts of the business system on organizations.		(Chien and Tsaur, 2007)
Intrinsic motivation	“The fact of doing an activity for its own sake: the activity itself is interesting, engaging, or in some way satisfying”.		(Guo et al 2014b, Ko et al 2005;
Perceived Usefulness	The degree to which a person believes that using a particular system would enhance his or her job performance.		Davis et al 1989)

Table 1: Description of terms used in our research model

3.1 Hypotheses Development

Organisational Culture: Organizational culture is considered as a critical factor promoting knowledge sharing between staff (Shao et al. 2012). Jones et al. (2006) investigated the impact of organizational culture on knowledge sharing, and specified that enterprise system require organization to reengineer business processes as well as adjust their structures to overcome cultural barriers and bring about changes in the primary organizational culture to support cross-functional nature of business systems. Bock et al. (2005) suggested that in trust-oriented culture, employees are more likely to share knowledge with their co-workers, thus to form a shared belief that emphasizes knowledge acquisition and application within the organization, which are critical drivers of ERP implementation success (Vandaie 2008). In multi-site case studies, Jones et al. (2005) found that a collaboration-oriented culture is more likely to facilitate tacit knowledge sharing within the organization.

Hypothesis (H1): Development culture has a significant positive impact on business systems success in Saudi enterprise.

Hypothesis (H2): Group culture has a significant positive impact on knowledge sharing in Saudi enterprise.

Hypothesis (H3): Hierarchy culture has a significant positive impact on knowledge sharing in Saudi enterprise.

Hypothesis (H4): Rational culture has a significant positive impact on business systems success in Saudi enterprise.

Knowledge sharing: Since business systems incorporate multiple business functions, individuals must not only be familiar with their own task and responsibility, but also collaborate closely with employees up and downstream along organizational integral business process (Shao et al. 2012). The staff need to undergo an intensive learning process to bridge the gap between what they have known and what the system requires them to know (Ke and Wei, 2008). Knowledge sharing is considerably important for organisations to ensure they have the best possible system available to them, which can ensure the long-term success (Kratzer et al. 2011; Roggeveen et al. 2012). Wang et al. (2007) showed that the active knowledge-sharing could produce a better relationship between business systems and organizational processes to improve business performance for achieving competitive success.

Hypothesis (H5): Knowledge sharing has a significant positive impact on business systems success in Saudi enterprise.

Perceived Usefulness and Intrinsic Motivation: Chang et al. (2008) and Liu et al. (2011) suggested that the perceived usefulness have a positive impact on the enterprise system success. The authors provided evidence that perceived usefulness leads to higher levels of system assimilation. In addition, Guo et al (2014a,b) highlighted that when people are more effective and productive when they are intrinsically motivated. Therefore, if the user perceives the business system as enjoyable, it is expected that a user's motivation have a significant effect on business system success.

Hypothesis (H6): The perceived usefulness of business system has a significant positive impact on the success of business system in Saudi enterprise.

Hypothesis (H7): The staff intrinsic motivator has a significant positive impact on the success of business system in Saudi enterprise.

4 METHODOLOGY

This research applied quantitative research approach to collect numerical data from participants in Saudi firm using business systems such as Oracle business systems. The survey instrument is used for this study to collect data. Data collection lasted from October 2014- January 2014. This study adopted previously validated instruments in order to ensure the measures are adequate and representative. The scales implemented in this survey were developed originally in English. However, a certified translator translated the English version to Arabic. The five point Likert scale (1=strongly disagree to 5=strongly agree) are used because it is considered one of the most commonly used techniques of scaling responses in a survey design. Total of 500 participants were contacted, 350 participated in the survey. After removing incomplete responses, in total 330 responses were used for data analysis. The Partial Least Squares (PLS) technique (using SmartPLS version 3.0) was used to test the research model. Partial Least Squares (PLS-SEM) structural equation modeling (SEM) tests theoretical models to understand the simultaneous modelling of relationships among various independent and dependent variables (Sohaib and Kang, 2015).

5 RESULTS

Descriptive analysis shows that that majority of the participants were male 63.3% and 37.7% are female, which is a fairly representation of the employees working in Saudi organisations. 46.9% were of 26-35 years old, followed by 33.3% participants were 36-45 years old. The majority of participants hold the bachelor's degree with 51.5%, followed by Masters degree with 35.7%. 50% of participants had 3-5 years of work experience, followed by more than 3-5 years (29%). Then 18% of participants had work experience of 1-3 years. 50% are in supervisory level of management followed by 36.7% was in mid-level of management and 13.3% were in top level of management. 29.6% of participants were from human resource department, 21.8% participants were from finance and accounting, followed by 24.2% from sales and marketing. 18.1% were from production and procurement department. In addition, 6.3% belong to other departments. Regarding the business system usage, In the HR department, 61.2% used 'oracle human resource'. In finance and accounting department, 62.5% used 'Oracle Payroll (PAY) or Account Payables'. In sales and marketing department, 28.7% used 'Oracle sales' while in production/procurement department 41% used 'oracle order management'.

5.1 Data Analysis

In our research model, all constructs are modelled as reflective indicators because they were observed as effects of latent variables. Internal consistency and discriminant validity were evaluated using Cronbach's alpha (CA) and the loadings of each variable, which exceeded recommended value of 0.7 values and were significant at p value < 0.05. Convergent validity is assessed using average variance extracted (AVE) and the composite reliability (CR). Convergent validity is established if the CR value is more than the AVE and all the AVE are greater than 0.50 (Hair et al., 2006). Discriminant validity

assesses whether a construct is different from all other constructs; the square root of individual AVE should be more than any correlation between the latent variables (Zait and Berteau, 2011). The square root of the AVE for each individual constructs is greater than the correlations with all other constructs. Table 2 shows the reliability and validity results.

	CA _{lpha}	AVE	CR	DC	GC	HC	RC	KSS	BSS	OM	IM
DC	0.80	0.81	0.71	0.90							
GC	0.81	0.79	0.73	0.23	0.89						
HC	0.78	0.80	0.75	0.57	0.61	0.89					
RC	0.77	0.81	0.82	0.16	0.38	0.43	0.90				
KS	0.84	0.80	0.78	0.06	0.18	0.25	-0.06	0.89			
IM	0.84	0.77	0.73	0.17	0.19	0.15	-0.27	0.25	0.87		
PU	0.82	0.81	0.71	0.05	0.24	0.10	-0.15	0.37	0.45	0.90	
BSS	0.84	0.79	0.70	0.51	0.35	0.37	0.41	0.52	0.58	0.36	0.89

Notes: AVE: Average variance extracted, CR: Composite reliability, DC: Development Culture, GC: Group Culture, HC: Hierarchy Culture; KS, Knowledge sharing; IM: Intrinsic motivation, PU: Perceived Usefulness, BSS: Business System Success

Table 2: reliability and validity.

After the reliability validity analysis, the structural model testing was performed to test the proposed hypotheses. Table 3 show the path co-efficient mean, standard deviation, t-statistics and p-value for each of the proposed hypotheses. For two-tailed tests the recommended value are $t > 1.96$ at $p < 0.05$, $t > 2.576$ at $p < 0.01$, $t > 3.29$ at $p < 0.001$. Figure 2 shows the path testing.

	Path	Path co-efficient	StDev	T statistics	P values	Supported?
H1	DC -> KS	0.24	0.02	1.97	0.002*	Yes
H2	GC -> KS	0.41	0.04	3.79	0.000***	Yes
H3	HC -> KS	0.33	0.02	2.61	0.000***	Yes
H4	RC -> KS	0.14	0.01	1.22	0.346	No
H5	KS-> BSS	0.61	0.03	4.90	0.000***	Yes
H6	IM -> BSS	0.42	0.05	2.40	0.000***	Yes
H7	PU -> BSS	0.45	0.02	1.98	0.002*	Yes

Notes: StDev: Standard deviation, DC: Development Culture, GC: Group Culture, HC: Hierarchy Culture; KS, Knowledge sharing; BSS: Business System Success, KS, Knowledge sharing; IM: Intrinsic motivation, PU: Perceived Usefulness, BSS: Business System Success *Significant at 0.05 level **, Significant at 0.01 level, *** Significant at 0.001 level

Table 3: Hypothesis testing

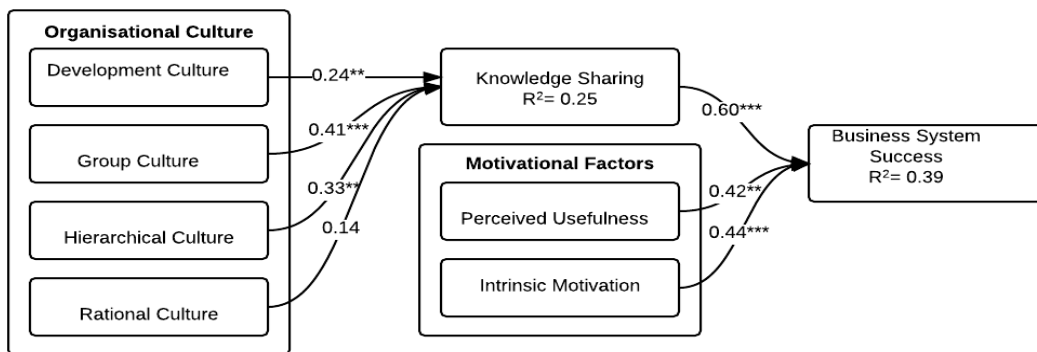


Figure 2: Path testing.

As shown in Table 3 and Figure 2, except H4 all the hypotheses are accepted. In addition, the whole empirical model predicted 25% variance in knowledge sharing and 39% variance in business system success.

6 DISCUSSION AND CONCLUSION

The result shows that organizational culture that emphasizes on groups and teamwork can facilitate knowledge sharing in Saudi firm. According to Shao et al. (2012), “the top executive needs to facilitate a development culture that focuses on innovativeness, creativity, and adaptation to the external environment, thus to offer the users a vision of organizational strategic directions and inspire the users to think innovatively about how the system might enable the business to accomplish its goals and achieve business performance”. Therefore Organizational development culture is positively related with business system success. In order to motivate employees’ to learn systems functionalities and facilitate organizational sharing of business system knowledge, the top executive needs to promote a trust-oriented group culture that focuses on participation by taking account of their individual needs. This means organizational group culture is positively related with knowledge sharing.

On the other hand, the relationship between organizational rational culture and knowledge sharing is insignificant. The means rational culture didn’t highlights the organization’s ability to function well in its environment. Lin (2007) suggests that giving incentives foster their knowledge sharing intention. In order to promote individuals’ active participation in business systems training, the top executives need to set up suitable evaluation mechanisms and organize a system of reward mechanisms to raise a hierarchical culture that emphasizes efficiency and coordination (Podsakoff et al. 2006; Sharma and Yetton 2003; Umble et al. 2003). This means the Saudi organisation should organize a system of reward mechanisms to raise a hierarchical culture that emphasizes on coordination among employees. The findings related to organization culture are consistent with previous studeis (Škerlavaj et al., 2010; Jones et al. 2006; Shao et al., 2012; Ifinedo 2007; Shao et al., 2015; Al Aattas and Kang, 2015).

The findings showed that Saudi organizations are mainly built on the foundation of knowledge in terms information exchange, knowledge creation and sharing. This indicates that business system success is built upon the concept of knowledge sharing and usage. Knowledge sharing within all users in enterprise will ensure that they are able to use the system effectively and efficiently thus contributing to their satisfaction, which will subsequently influence enterprise system success (Dezdar and Ainin 2011). Wang et al. (2007) showed that effective knowledge sharing could lead to a better fit between business systems and organizational processes to enhance business performance and achieve competitive success. Knowledge is the foundation of an organization economical advantage, and ultimately the primary driver of an individual performance. The findings related to knowledge sharing are aligned with previous studies (Sedera et al. 2003; Bock et al. 2005; Jones, 2005; Wang et al., 2007; Shao et al. 2012). The authors showed knowledge is an important antecedent to business system success such as ERP.

Our data analysis also shows that both intrinsic motivation and perceived usefulness has positive influence on business system success. This indicates that employee confidence in their ability to successfully use business system is linked to their intrinsic level of motivation and perceived usefulness of the system. This highlights the importance of managers increasing the usefulness of business systems to increase user confidence levels and thus improve organizational performance. The results related with intrinsic motivation and perceived usefulness is aligned with (Guo et al. 2014; Liu et al. 2011).

6.1 Implications

This research provided both theoretical and practical implications of the business system success for Saudi firms in particular. This study brings new understandings regarding the success of business

systems through the inclusion of organization culture and knowledge sharing towards success indicators of business systems in Saudi enterprise. From the managerial perspective, this study provides insights for the Saudi organizations to pay attention to the organizational culture, knowledge sharing and staff motivational factors to improve the performance of their business systems. For example, the top management should set up definite rules and regulations, hierarchical structure, and formal communication channels to promote the success indicators of their business systems.

6.2 Limitations and Recommendations for Future Research

This study focuses on a limited number of factors for business systems success. More relevant factors such as system quality, service and information quality may be added to improve the understanding of business systems success in Saudi context. In addition, future work could explore the specific type of knowledge sharing such as, tacit, implicit or explicit knowledge sharing towards business system success. Furthermore, the data were collected in one city Jeddah, Saudi Arab, which may affect the generalizability of the findings.

References

- Adlan, A., and Have, H. (2012). The Dilemma of Revealing Sensitive Information on Paternity Status in Arabian Social and Cultural Contexts, *Journal of Bioethical Inquiry*, 9, 403-409.
- AL-Adalieh, R., M. and AL-Atawi, M. S. (2011). Organizational culture impact on knowledge exchange: Saudi Telecom context, *Journal of Knowledge Management*, 15, 212-230.
- Aattas, M.I., Kang, K. (2015), 'Cultural impact on the success of new business systems in Saudi enterprises', *Asian Journal of Information Technology*, vol. 14, no. 4, pp. 129-134.
- Alharbi, A.M. & Kang, K. (2014), 'E-participation Service in Saudi Arabian E- government Websites: The Influencing Factors from Citizens' Perspective', 14th European Conference on eGovernment, Brasov, Romania.
- Alston, F. and Tippett, D. (2009). Does a Technology-Driven Organization's Culture Influence the Trust Employees Have in Their Managers?, *Emj-Engineering Management Journal*, 21, 3-10.
- Bearegard, T. A. (2011). Direct and Indirect Links Between Organizational Work-Home Culture and Employee Well-being. *British Journal of Management*, 22, 218-237.
- Boehm, E. (2012). Improving Efficiency and Effectiveness in an Automotive R&D Organization How a Traditional R&D Division Reshaped Itself Into a High-Performance Organization. *Research-Technology Management*, 55, 18-25.
- Bock, G. W., Zmud, R. W., Kim, Y. G., and Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, Social-Psychological Forces, and organizational climate, *MIS Quarterly*, 29(1), 87-111.
- Bourrie, D., Chetan. S., and Sankar. (2012). The impact on ERP implementation by leadership and organisational culture: a case analysis. *Int. J. Information Systems and Change Management*, Vol. 6, No. 2.
- Chien, S.-W. and Tsaur, S. M. (2007). Investigating the success of ERP systems: Case studies in three Taiwanese high-tech industries. *Computers in Industry*, 58, 783-793.
- Chang, M. Cheung, W. Cheng, C. and Yeung. J. H. Y. (2008). Understanding ERP system adoption from the user's perspective. *International Journal of Production Economics*, 113 (2): 2008, 928-942.
- Crow, S. M. and Hartman, S. J. (2002). Organizational culture: its impact on employee relations and discipline in health care organizations. *The health care manager*, 21, 22-28.
- Davis, F.D. Bagozzi, R.P. and Warshaw, P.R. (1989). User Acceptance of Computer Technology: A Comparison Of Two Theoretical Models. *Management Science* (35:8), 1989, 982.
- DeLone, W and McLean, E. (1992). *Information Systems Success: The Quest for the Dependent*

- Variable. *Information Systems Research*, 3(1), 60–95.
- Denison D. R., and Spreitzer, G.M. (1991). Organizational culture and organizational development: a competing values approach. *Research in Organizational Change and Development*. 5, 1–21.
- Dezdar, S., and Ainin, S. (2011). The influence of organizational factors on successful ERP Implementation, *Management Decision*, Vol. 49 No. 6
- Eid, M. and Nuhu, N. A. (2011). Impact of learning culture and information technology use on knowledge sharing of Saudi students, *Knowledge Management Research & Practice*, 9, 48-57.
- Gable, G., Sedera, D., & Chan, T. 2003. Enterprise Systems Success: a measurement model, In proceeding of the 24th International Conference on Information Systems, Seattle, Washington.
- Gerow, Jennifer E. Ayyagari, R. Thatcher, Jason Bennett and Roth, Philip L. (2013). Can We Have Fun @ Work? The Role of Intrinsic Motivation for Utilitarian Systems, *European Journal of Information Systems*, 22, 360–380.
- Guo, Y., Feng, Y., Wang, C. (2014a). The impact mechanism of organizational culture on ERP assimilation: a multi-case study, 2014 47th Hawaii International Conference on System Science
- Guo, Y., Wang, C., Feng, Y. (2014b). The Moderating Effect of Organizational Learning Culture on Individual Motivation and ERP System Assimilation at Individual Level. *Journal of Software*, North America, 9
- Hahn, M. H., Lee, K. C. and Lee, D. S. (2013). Network structure, organizational learning culture, and employee creativity in system integration companies: The mediating effects of exploitation and exploration, *Computers in Human Behavior*.
- Hendricks, K. B., Singhal, V. R., and Stratman, J. K. (2007). The impact of enterprise systems on corporate performance: A study of ERP, SCM, and CRM system implementations,” *Journal of Operations Management*, 25(1), 65–82.
- Ifinedo, P., Rapp, B., Ifinedo, A and Klas Sundberg. (2010). Relationships among ERP post-implementation success constructs: An analysis at the organizational level,” *computers in Human Behavior*. 26 (2010), 1136–1148
- Jones, M. C. (2005). Tacit knowledge sharing during ERP implementation: A multi site case study, *Information Resources Management Journal*, 18(2), 1–23.
- Jones, M. C., Cline, M., and Ryan, S. (2006). Exploring knowledge sharing in ERP implementation: An organizational culture framework, *Decision Support Systems*, 41, 411–434.
- Kang, K. (2010). 'Considering Culture in Designing Web Based E-commerce' in Kang, K (ed), *E-Commerce*, In-Tech, Vukovar, Croatia, 99-111.
- Ke, W., and Wei, K. (2008). Organizational culture and leadership in ERP Implementation. *Decision Support Systems*, 45(2), 208–218.
- Ke, W. Wang, X. and Wei, K. K. (2008). User motivation to explore enterprise system features: An exploratory study of its organizational antecedents and consequences. in Proc. ICIS, 2008. Paper 41.
- Ko, D. G. Kirsch, L. J. and King, W. R. (2005). Antecedents of Knowledge Transfer from Consultants to Clients in Enterprise System Implementations. *MIS Quarterly* (29:1), March 2005, 59-85.
- Kraaijenbrink, J., Spender, J. C., and Groen, A. J. (2010). The resource-based view: A review and assessment of its critiques, *Journal of Management*, 36(1), 349–372.
- Lin, H. F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions, *Journal of Information Science*, 33(2), 135–149.
- Liu, L.N. Feng, Y.Q. Hu, Q. and Huang, X.J. (2011). "From transactional user to VIP: how organizational and cognitive factors affect ERP assimilation at individual level." *European Journal of Information Systems*, 20, 186-200

- Luo, W. H., and Strong, D. M. (2004). A framework for evaluating ERP implementation choices. *IEEE Transactions on Engineering Management*, 51(3), 322–333.
- McDermott, C.M. and Stock, G.N. (1999). Organizational culture and advanced manufacturing technology implementation, *Journal of Operations Management*, 17(5), 521-533.
- McGinnis, T. C., & Huang, Z. Y. (2007). Rethinking ERP success: A new perspective from knowledge management and continuous improvement, *Information & Management*, 44, 626–634.
- Mueller, J. (2014). A specific knowledge culture: Cultural antecedents for knowledge sharing between project teams,” *European Management Journal*, 32, 190-202.
- Pabedinskaitė, A. (2010). Factors of successful implementation of ERP systems, *Economics and Management*, 15, 691-697.
- Podsakoff, P. M., Bommer, W. H., Podsakoff, N. P., and MacKenzie, S. B. (2006). Relationships between leader reward and punishment behavior and subordinate attitudes, perceptions, and behaviors: A meta-analytic review of existing and new research. *Organizational Behavior and Human Decision Processes*, 99(2), 113–142.
- Quinn, R. E., and Spreitzer, G. M. (1991). The psychometrics of the competing values culture instrument and an analysis of the impact of organizational culture on quality of life. *Research in Organizational Change and Development*, 5, 115–142.
- Sedera, D., Gable, G., & Chan, T. (2004). A factor and structural equation analysis of the enterprise systems success measurement model. In *Proceedings of the 25th international conference on information systems*, Washington, DC, USA.
- Sharma, R., and Yetton, P. (2003). The contingent effects of management support and task interdependence on successful information systems implementation. *MIS Quarterly*, 27(4), 533–555.
- Shao, Z., Feng, Y. and Liu, L. (2012). The mediating effect of organizational culture and knowledge sharing on transformational leadership and Enterprise Resource Planning systems success: An empirical study in China. *Computers in Human Behavior*, 28, 2400-2413.
- Sohaib, O. and Kang, K. (2015). Individual Level Culture Effects on Multi-Perspective iTrust in B2C E-commerce. In *Proceedings of the 26th Australasian Conference on Information Systems (ACIS)*, Adelaide, 1-11
- Škerlavaj, M., Song, J. H. and Lee, Y. (2010). Organizational learning culture, innovative culture and innovations in South Korean firms. *Expert Systems with Applications*, 37, 6390-6403.
- Umble, E. J., Haft, R. R., and Umble, M. M. (2003). Enterprise resource planning: Implementation procedures and critical success factors. *European Journal of Operational Research*, 146(2), 241–257.
- Vandaie, R. (2008). The role of organizational knowledge management in successful ERP implementation projects,” *Knowledge-Based Systems*, 21, 920–926.
- Wu, I. L., and Chuang, C. H. (2010). Examining the diffusion of electronic supply chain management with external antecedents and firm performance: A multi-stage analysis. *Decision Support Systems*, 50, 103–115.