

## Association for Information Systems AIS Electronic Library (AISeL)

---

PACIS 2012 Proceedings

Pacific Asia Conference on Information Systems  
(PACIS)

---

7-15-2012

# Knowledge Management For Enterprise Systems: A Review Of The Literature

Sepideh Ebrahimi

*Faculty of Computer Science and Information Systems, Universiti Teknologi Malaysia, Johor Bahru, Malaysia,*  
[esepideh2@live.utm.my](mailto:esepideh2@live.utm.my)

Follow this and additional works at: <http://aisel.aisnet.org/pacis2012>

---

### Recommended Citation

Ebrahimi, Sepideh, "Knowledge Management For Enterprise Systems: A Review Of The Literature" (2012). *PACIS 2012 Proceedings*. 72.

<http://aisel.aisnet.org/pacis2012/72>

This material is brought to you by the Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in PACIS 2012 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# KNOWLEDGE MANAGEMENT FOR ENTERPRISE SYSTEMS: A REVIEW OF THE LITERATURE

Sepideh Ebrahimi, Faculty of Computer Science and Information Systems, Universiti  
Teknologi Malaysia, Johor Bahru, Malaysia, esepideh2@live.utm.my

## Abstract

*Enterprise Resource Planning (ERP) systems, also called Enterprise Systems (ES), have received much attention from researchers and practitioners. Along with that many researches have underlined the pivotal role of knowledge management for enterprise system success. This research in progress paper explores articles published in 8 journals during recent 11 years for knowledge management instances across ES lifecycle and categorizes these processes according to each phase of ES and knowledge management lifecycle. Subsequently presents the further analysis about gaps in the research area and under-studied fields which warrant future research.*

*Keywords: Enterprise Systems, ERP, Knowledge Management, Literature Review.*

# 1 INTRODUCTION

Study of Enterprise systems (ES) in parallel with the acknowledgement of Knowledge Management (KM) role for its success has proliferated during last two decades. In their recent study Sedera and Gable (2010) demonstrated the strong association between KM competency and ES success. Although a wealth of studies on KM activities related to the ES lifecycle exists; yet, there is still lack of comprehension on what specific activities of each KM phase are related to each phase of the ES lifecycle. This paper addresses this gap by providing summary results of an archival analysis conducted on the 8 leading IS journals suggested by the Association of Information Systems (AIS) [available at: <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=346>]: European Journal of Information Systems, Information Systems Journal, Information Systems Research, Journal of AIS, Journal of Information Technology, Journal of MIS, Journal of Strategic Information Systems, and MIS Quarterly over an 11 year (2000-2010) period. Selection of these leading journals was due to the fact that major contributions are likely to be published in referred journals (Webster & Watson 2002). This paper categorizes KM contributions and arguments in the reviewed articles according to the ES lifecycle and presents a comprehensive overview of the KM related activities for each phase of ES implementation and usage.

KM phases, here refer to the ones proposed by Alavi and Leidner (2001) as comprising creation, storage, transfer and application and ES lifecycle phases deploy Markus and Tanis (2000) framework as chartering, project, shakedown and onward and upward. The chartering phase comprises activities lead to the decision to adopt and fund in an enterprise system. Once the decision is made and a package is selected the process goes through the next stage called project phase, which consists of activities to get the ES up and running. Afterward is shakedown phase, which refers to the period between rollout and the time, when normal operations are achieved. Finally onward and upward phase during which normal operations are continued until the system is replaced with an upgrade or a different system (Markus & Tanis 2000).

The remainder of this paper encompasses 6 sections. The first four sections describe the KM activities related to each phase of ES lifecycle; each ES phase in a separate section which is then subcategorized to different phases of KM lifecycle<sup>1</sup>. Subsequently in the latter 2 sections, discussion and conclusion are elaborated and areas of warranted future research are discussed.

## 2 CHARTERING PHASE

### 2.1 Knowledge Creation during Chartering Phase

Organizations learn about new IT innovations from outside resources, which converse around the innovation and make community of discourse (Wang & Ramiller 2009). Technology vendors and consultants use these communities to push the technology innovation into organizations and organizations use them to pull the technology inside (Newell et al. 2000). Feedback from engaged organizations in the innovation to this community is a source for other organizations tend to adopt it (Swanson & Wang 2005; Wang & Ramiller 2009).

Organizations who seek to adopt ES need to articulate a clear vision about the expected role of the system in the enterprise (Grant 2003). EI Amrani et al. (2006) propose some guidelines for developing the ERP implementation strategy in terms of organizational vision, BPR, functional and physical scope and speed of implementation to gain better results. Also Ranganathan and Brown (2006) and Karimi et al. (2007) emphasize the importance of greater scope of implementation on future results

To describe different aspects of the ES adoption project, organizations develop business case, which usually comprises different parts; This include but not limited to justification and rationale for ES adoption (Oliver & Romm 2002, Al-Mudimigh et al. 2001, Elbanna 2006), project scope, objective,

---

<sup>1</sup> A few of the subcategories (i.e. a particular KM phase in an ES stage) are skipped in further sections; this is due to the fact that no instance of KM-related activities have found according to these phases in the reviewed literature.

needs and benefits (Al-Mudimigh et al. 2001) and expected business value and associated business changes (Davenport 2000 cited at Al-Mudimigh et al. 2001). Oliver and Romm (2002) argue that justification to adopt ERP usually encompasses 4 broad categories: technology, procedures, organization and people. Also Irani et al. (2005) assert organizations that tend to adopt ES must be able to quantify and qualify the intangible and non-financial benefits and indirect costs of the project in a non-traditional ISE manner. Moreover Swanson and Wang (2005) claim that business coordination is the most significant reason for adopting an ES, which leads to success.

Selecting an ES package is one of the most important activities in chartering phase. To choose best suited ES package, organizations undergo gap analysis by examining the functionalities provided by the ES packages and the required ones by the company (Wei et al. 2005). Wang et al. (2006) argue that initial perceived ERP-organization misalignment can persist throughout the implementation process and lead to lower system quality after implementation. Sia and Soh (2007) address these discrepancies in form of entities, properties of key entities, transformation rules and their lawful states according to the country, industry and strategic context of the organization.

## **2.2 Knowledge Transfer during Chartering Phase**

Lack of communication about need for change and involvement of affected people are common problems during chartering phase, which will be exported to later phases (Markus 2004). This is discussed in two time frames in the literature; (1) before and (2) after developing the ES adopting rationale and strategy. During the first time frame some authors assert communicating and consulting with stakeholders within the organization (Irani et al. 2005; Grant 2003; Elbanna 2006) and outside organization with consultants (Elbanna 2006; Swanson 2010) about need for change and rationales for ES adoption. During the second time frame the developed vision must be spread throughout the enterprise (Grant 2003; Cooke & Peterson 1998 cited at Al-Mudimigh et al. 2001). To do so Staehr (2010) proposes using formal and informal channels within the organization and Dong et al. (2009) suggest knowledge transfer from senior managers to middle managers and subsequently to users.

During the process of evaluating different ES packages and selecting the most appropriate one, knowledge sharing among different internal and external parties is crucial. Consultants, especially system integrators (Swanson 2010) and Middle managers' involvement (Dong et al. 2009) are pivotal. Meanwhile the major importance of users sharing knowledge about their needs and operating methods before selecting the best suited ERP package should not be neglected (EI Amrani et al. 2006).

# **3 PROJECT PHASE**

## **3.1 Knowledge Creation during Project Phase**

Collaboration of knowledgeable individuals paves the way for knowledge creation (Nonaka & Konno 1998). In line with that, Staehr (2010) states that best people in ERP team are more likely to develop new ways of working in order to take advantage of ERP system capabilities. These best people are usually defined as internal experts in business and technology working alongside knowledgeable consultants (Robey et al. 2002; Sumner 2000; Gosain et al. 2005). Robey et al. (2002) assert that collaboration of these 2 groups lead to solving the configuration knowledge barrier. Other researchers add more requisite characteristics for ERP team members: long length of service, ability to share information (EI Amrani et al. 2006), effective communication skills (Sumner 2000) and learning ability (Bagchi et al. 2001; Sumner 2000).

There are 2 major sources of knowledge during an ES implementation process: vendors and consultants' knowledge of the software and organization's knowledge of itself (Sedera & Gable 2010). One of the challenges during an ERP implementation process is integrating consultants' application-specific knowledge and technical expertise with existing internal teams (Grant 2003; Newell et al. 2000; Sumner 2000). Davis et al. (2009) describe another sort of knowledge creation by integrating IT competence of IS implementation team and stakeholders from the user base, called joint IT competence.

During an ES implementation process the explicit (reference models) and tacit (logic embedded in reference models) knowledge of the system is transferred to the organization. This knowledge should be merged with existing values within the organization while the differences between these two often lead to conflict (Lee & Lee 2000). This conflict (also called misalignment) between ES and adopting organization has been studied by some researchers (e.g. Sia & Soh 2007; Soh & Sia 2004; Wei et al. 2005). To address this Wang et al. (2006) emphasize the role of ERP country of origin, quality consultants and top management; and Robey et al. (2002) propose training on both technical and business processes along with a phased implementation approach. Liang and Xue (2004) claim that gradual organizational change will help solving this problem since according to organizational learning theory new knowledge is interpreted in the context of existing knowledge.

Business process modeling is one of the important activities during project phase. Business process models visually depict how operations are conducted in a business (Cutis et al. 1992; Gill 1999 cited at Bandara et al. 2005), how the organization will implement the ES package to support its business activities and how the business will operate after the ES is in use (Al-Mudimigh et al 2001).

Documenting configuration decisions and rationale during project phase is an activity of great importance, which if not done properly will cause problems during onward and upward phase (Markus et al. 2000). Markus (2001) asserts that the documentation must not only cover what was done (declarative knowledge), but also how (procedural knowledge) and why it was done (rationale).

Other instances of explicit knowledge creation are request for change documents (Sia & Soh 2007), documentation of experiences and lessons learned, to be used in other sites of the organization (van Fenema et al. 2007) and generating training materials by power users (Volkoff et al. 2004). Other than these formal documents Topi et al. (2006) put emphasis on the importance of informal notes generated, shared and used by users during an ERP implementation in order to preserve, transfer, transform or translate the generated knowledge.

### **3.2 Knowledge Transfer during Project Phase**

ES adopting organizations usually look for acquiring the consultants' knowledge about implementation, operation and maintenance of the ES (Ko et al. 2005; Sedera & Gable 2010). Ko et al. (2005) investigates the antecedents of knowledge transfer from consultants to the organization in terms of knowledge factors (absorptive capacity, shared understanding and arduous relationship), communication factors (source credibility and communication encoding and decoding competence) and motivational factors (source and recipient intrinsic motivation). For this purpose Volkoff et al. (2004) propose two knowledge transfer mechanisms: an intermediate community of practice (CoP) and a bridge structure. The intermediate CoP comprised of power users who are sent to work with ES team and bring back practice-based knowledge. The bridge structure is a knowledge transfer mechanism like regular meetings, co-located works and business process diagram.

Knowledge transfer between ES team and users during project phase is mostly about requirements, process mapping and system configuration (Bagchi et al. 2003; EI Amrani et al. 2006). Bandara et al. (2005) emphasize the importance of information resources and stakeholder participation during business process modeling. Wagner and Newell (2007) argue that there are 3 main hinders to this knowledge transfer: legacy thinking, pseudo participation and lack of motivation. To address the problem, Hwang (2005) proposes prototyping the change process to develop a more concrete appreciation of the process and enhancing communication. Davis et al. (2009) claim that joint IT competence leverages shared meaning and understanding of the situation, thus leads to more efficient and effective communication. Furthermore they argue that IS-user partnership facilitates open communication between IS and users.

The importance of cross-functional communication is emphasized by many researchers; lack of this communication will lead to problems during project phase (Elbanna et al. 2006) or after going live (Staehr 2010). Akkermans and van Helden (2002) claim that mutually reinforcing communication and collaboration between project team members from different departments is the core process of any successful implementation. Gosain et al. (2005) label this core process as cross-functional coordination. They argue that coordination can be advanced in 3 ways: lean, rich and mediated. Rich

coordination, which is relevant to knowledge transfer, is achieved through mutual adjustment by some methods described by Gosain et al. (2005). In addition to cross-functional communication the communication within functions and among peers are emphasized by Van Fenema et al. (2007).

Training for an ES adoption success is of prime importance. Sharma and Yetton (2007) argue that a two stage-training program is effective for ES in which stage one focuses on individual cognition, provides technology-related training and develops end-user technical competency and stage two focuses on inter-individual cognitions, provides collaborative task knowledge and develops transactive memory. Avital and Vandenbosch (2000) through a case study describe the top-down approach for training, which is done from organization's mission to business processes. Training on business processes in addition to procedural training is underlined in a multitude of studies (e.g. Robey et al. 2002; Al-Mudimigh et al. 2001). Furthermore Al-Mudimigh et al. (2001) claim different levels of people in project class and users need different levels of training. Dong et al. (2009) studies a successful ES implementation and state that training in relation with change management should encompass business processes, organization policies, purpose of various reports in the system, old system limitations, new ES benefits and holistic understanding of the whole system input and output.

### **3.3 Knowledge Application during Project Phase**

Business case, developed during chartering phase, is used in this phase to control project scope, and business process model is used as a template for requirements to configure and implement the system (Al-Mudimigh et al. 2001). Another form of knowledge application during project phase is previous projects' knowledge and learning reuse to subsequent implementations in incremental approach (Robey et al. 2002; Markus 2001; van Fenema et al. 2007). In this case Staehr (2010) warns about the different contexts in different sites of a corporation and their possible misleading information.

## **4 SHAKEDOWN PHASE**

### **4.1 Knowledge Transfer during Shakedown Phase**

Knowledge transfer from power users to users is emphasized in shakedown phase in order to decrease the dependence of organization on power users (Markus et al. 2000; Adam & O'Doherty 2000). Power users share their knowledge of the system with users and help them use the system and resolve problems (Volkoff et al. 2004; Avital & Vandenbosch 2000; Häkkinen & Hilmola 2008; van Fenema et al. 2007; Cotteleer & Bendoly 2006; Karuppan & Karuppan 2008).

Knowledge transfer from users to ES team in this phase about their concerns is raised after utilizing the system to perform their duties. Gefen and Ridings (2002) state that these concerns are mostly about system performance, bug reports and functionality issues and argue that ES team responsiveness toward users in this phase lead to user approval of the ES. Wagner and Newell (2007) claim that knowledge transfer in shakedown phase is easier in comparison with project phase since there are tangible products/ processes/ functions to refer to.

Communication between different organizational levels and different business processes during shakedown phase is vital (Häkkinen & Hilmola 2008). After ES implementation, employees need a broader scope of knowledge, they become knowledgeable on what others do; thus the organizational knowledge becomes more convergent and each user's knowledge become more divergent. They also assert that since the users seek knowledge sources for their inquiries the meta-knowledge becomes valuable (Lee & Lee 2000). Van Fenema et al. (2007) and Srivadhana and Pawlowski (2007) emphasize the role of social networks within the organization during ES implementation process in order to share the knowledge on how to resolve issues especially among peers. This knowledge sharing among people with a certain degree of similarity and lack of direct interaction can be considered as a network of practice through which the trans-situated learning takes place. Vaast and Walsham (2009) argue that trans-situated learning builds and support information structure (in this case ERP implementation).

One of the problems faced by the users during the shakedown phase is that the ES has been evolved from the training time to usage time and users feel inadequate skill and training about the system. Some researchers emphasize that it is not enough to limit the training to project phase; training should be seen as an ongoing matter (Häkkinen & Hilmola 2008; Staehr 2010).

#### **4.2 Knowledge Storage during Shakedown Phase**

Power users are among the most emphasized knowledge repositories within the organization after ES rollout. Cotteleer and Bendoly (2006) name them as source of vicarious learning. Many studies have reported the problem of knowledge drain, which mostly happens due to staff turnover or staff poaching (e.g. Sumner 2000; Bagchi et al. 2003; Robey et al. 2002) which may lead to ongoing dependency on external implementation partners (Staehr 2010). Adam and O'Doherty (2000) and Staehr (2010) propose using incentives, bonuses and rewards to retain power users.

Another problem about the knowledge storage within power users is knowledge erosion due to time lag between training and rollout. Karuppan and Karuppan (2008) propose some training methods to ameliorate this problem such as criteria for choosing more effective power users, scheduling training according to abilities and learning style, designing training programs emphasizing performance on far-transfer tasks and overlearning through refresher sessions.

Another problem is the overwhelming information, which makes finding accurate and up-to-date information hard (Häkkinen & Hilmola 2008). Van Fenema et al. (2007) observe using databases like Lotus Notes in order to maintain information about issues, experiences, problem solving etc.

#### **4.3 Knowledge Application during Shakedown Phase**

The most important instance of knowledge application during shakedown phase is when the power users apply their knowledge of the software gained during project phase to resolve the users and business units' problems (Volkoff et al. 2004; van Fenema et al. 2007; Karuppan & Karuppan 2008; Cotteleer & Bendoly 2006). Furthermore users may make use of other users' experiences to resolve problems (van Fenema et al. 2007). This knowledge can be gained through communication with other users, electric databases (van Fenema et al. 2007) or informal notes (Topi et al. 2006).

### **5 ONWARD AND UPWARD PHASE**

#### **5.1 Knowledge Transfer during Onward and Upward Phase**

During onward and upward phase knowledge is transferred between organization and external parties involved in the implementation. This includes but not limited to what has been achieved and how to take it further (Adam & O'Doherty 2000). Furthermore consultants provide support and advice for system adjustments and upgrades (Srivardhana & Pawlowski 2007) and Organizations transfer knowledge about their requirements and expectations to vendors to be considered in future patches or upgrades (Ng & Gable 2010).

#### **5.2 Knowledge Storage during Onward and Upward Phase**

In a research about maintenance operations during onward and upward phase Ng and Gable (2010) discuss different stored data and databases within the organization. They argue that this information must be stored and kept up-to-date in order to retain maintenance knowledge within the organization, improve management productivity and enhance further analysis and decision making.

#### **5.3 Knowledge Application during Onward and Upward Phase**

Documents about configuration decisions and rationales which mainly made during project phase by ES team is reused in onward and upward phase (Markus et al. 2000) to recall reason for decisions when decisions need to be revisited (Markus 2001) or when the system is upgraded (Axline 2000 cited at Markus 2001). Furthermore previously stored information about modification, customization

etc. is used during the patch installation and other maintenance operations (Ng & Gable 2010). In addition to these formal documents the informal notes generated by users during previous phases are used in this phase in rare situations or by less experienced users. They can provide basis for training requirements during system upgrade as well (Topi et al. 2006).

Knowledge application in order to improve business processes during onward and upward phase is highlighted by some researchers. Srivardhana and Pawlowski (2007) argue that exposure to external knowledge sources (best practices embedded in the system, vendor and consultants' knowledge) and enhancing organizational knowledge/memory lead to enhanced knowledge capabilities for business process innovation. Furthermore managers can more efficiently integrate business processes and functions using the cross functionality and better information about organization's operation provided by the ES (EI Amrani et al. 2006). The improvements in business processes can be brought about by users as well. Staehr (2010) claims that by knowing more about using the ES, users find potentials for business process improvements which lead to operational business benefits. Cotteleer and Bendoly (2006) state benefits are the result of bottleneck identification and reducing the variability in work processes around them. Karimi et al. (2007) investigate the antecedents of business process outcomes in terms of ERP radicalness, extent of implementation and delivery system.

## 6 DISCUSSION

Table 1 depicts a summary of the findings in the reviewed literature<sup>1</sup>. By investigating Table 1 and described KM activities in previous sections some discussions are emerged as follows.

There is a predominance study on the project phase of the ES lifecycle (51% of the reviewed literature), which can be inferred that this phase is adequately studied. Chartering and shakedown phases are the second and third most studied (24% and 16% of the reviewed literature). Onward and upward phase has the smallest proportion (9%) of studies among all phases of ES lifecycle, which suggests that this phase is under-studied.

Among all phases of the KM lifecycle, activities related to knowledge creation and transfer, include 86% of the whole identified KM-related activities (39% and 47% respectively). Thus it can be concluded that these phases are adequately studied. On the other hand literature related to storage and application of knowledge only found in about 14% of the reviewed literature (4% and 10% respectively). Hence obviously these two phases of KM lifecycle during ES implementation and use lifecycle are under-studied.

An overview of Table 1 shows that the focus of the researches prior to roll out is on creation and transfer of knowledge and after roll out is on storage and application of it. This can be described according to the fact that prior to roll out, knowledge is created within the enterprise as a result of the integration of different internal or external knowledge or transferred from external sources. After the roll out there is need to transfer it to all parts and divisions of the organization as well as store and apply it.

The fact that there is dearth of investigation in knowledge storage and application during shakedown and onward and upward phases along with the importance of this investigation as described above, make the need for further research in these areas even more momentous.

---

<sup>1</sup> Articles with minor KM points or activities are not brought in the table. Table 1 merely includes articles with main contribution or enough discussion about KM related activities during ES phases. Moreover broad articles, which discuss the importance of KM during ES lifecycle is not included in Table 1 as well.



Study	Chartering				Project				Shakedown				Onward & Upward			
	Creation	Transfer	Storage	Application	Creation	Transfer	Storage	Application	Creation	Transfer	Storage	Application	Creation	Transfer	Storage	Application
Akkermans and van Helden (2002)																
Al-Mudimigh et al. (2001)	x				x	x										
Avital and Vandenbosch (2000)																
Bagchi et al. (2003)																
Bandara et al. (2005)					x	x										
Cotteleer and Bendoly (2006)													x			x
Davis et al. (2009)					x	x										
Dong et al. (2009)		x														
EI Amrani et al. (2006)	x															
Elbanna (2006)		x														
Gefen and Ridings (2002)										x						
Gosain et al. (2005)																
Grant (2003)	x	x														
Häkkinen and Hilmola (2008)																
Irani et al. (2005)	x	x														
Karimi et al. (2007)																x
Karuppan and Karuppan (2008)																
Ko et al. (2005)																
Lee and Lee (2000)					x											
Liang and Xue (2004)					x											
Newell et al. (2000)	x															
Ng and Gable (2010)																
Oliver and Romm (2002)	x															
Ranganathan and Brown (2006)	x															
Robey et al. (2002)					x	x										
Sharma and Yetton (2007)																
Sia and Soh (2007)					x											
Soh and Sia (2004)					x											
Srivardhana and Pawlowski (2007)																
Staeher (2010)					x	x										
Swanson and Wang (2005)	x															
Topi et al. (2006)					x											
van Fenema et al. (2007)																
Volkoff et al. (2004)																
Wagner and Newell (2007)																
Wang and Remiller (2009)	x															
Wang et al. (2006)	x															
Wei et al. (2005)																

Table 1. Knowledge Management (KM) for Enterprise Systems (ES) studies

## 7 CONCLUSION

This research in progress paper explores the previous literature in time frame of 2000-2010 in 8 leading IS journals, finding and categorizing KM activities according to ES and KM lifecycles. This led to identifying the adequately or under-studied phases of KM across ES lifecycle, which guides researchers focus on less studied areas in further researches. Furthermore this paper provides a useful resource for KM-related activities during ES lifecycle by categorizing topics and concepts found in previous studies. Finally the current analysis merely went through top IS journals, future studies on KM-related activities during ES implementation and usage phases could go through other journals as well as conference publications.

## References

- Adam, F. and O'Doherty, P. (2000). Lessons from enterprise resource planning implementations in Ireland – towards smaller and shorter ERP projects. *Journal of Information Technology*, 15 (4), 305–316.
- Akkermans, H. and 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*, 11 (1), 35-46.
- Al-Mudimigh, A., Zairi, M. and Al-Mashari, M. (2001). ERP software implementation: An integrative framework. *European Journal of Information Systems*, 10 (4), 216–226.
- Alavi, M. and Leidner, D.E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25 (1), 107-136.
- Avital, M. and Vandenbosch, B. (2000). SAP implementation at Metalica: An organizational drama in two acts. *Journal of Information Technology*, 15 (3), 183-194.
- Axline, S. (2000). *Proactive Adaptation in ERP Implementation Teams: Mechanisms of Team Learning*. Ph.D. dissertation. Claremont Graduate University.
- Bagchi, S., Kanungo, S. and Dasgupta, S. (2003). Modeling use of enterprise resource planning systems: A path analytic study. *European Journal of Information Systems*, 12 (2), 142-158.
- Bandara, W., Gable, G.G. and Rosemann, M. (2005). Factors and measures of business process modelling: Model building through a multiple case study. *European Journal of Information Systems*, 14 (4), 347-360.
- Cooke, D.P. and Peterson, W.J. (1998). *SAP implementation: Strategies and results*. The Conference Board, New York.
- Cotteleur, M.J. and Bendoly, E. (2006). Order lead-time improvement following enterprise information technology implementation: An empirical study. *MIS Quarterly*, 30 (3), 643-660.
- Curtis, B. and Kellner, M.I. and Over, J. (1992). Process modeling. *Communications of the ACM*, 35 (9), 75-90.
- Davenport, T.H. (2000). *Mission critical: Realizing the promise of Enterprise Systems*. Harvard Business School Press, Boston, MA.
- Davis, J.M., Kettinger, W.J. and Kunev, D.G. (2009). When users are IT experts too: The effects of joint IT competence and partnership on satisfaction with enterprise-level systems implementation. *European Journal of Information Systems*, 18 (1), 26-37.
- Dong, L., Neufeld, D. and Higgins, C. (2009). Top management support of enterprise systems implementations. *Journal of Information Technology*, 24 (1), 55–80.
- El Amrani, R., Rowe, F. and Geffroy-Maronnat, B. (2006). The effects of enterprise resource planning implementation strategy on cross-functionality. *Information Systems Journal*, 16 (1), 79–104.
- Elbanna, A.R. (2006). The validity of the improvisation argument in the implementation of rigid technology: The case of ERP systems. *Journal of Information Technology*, 21 (3), 165-175.
- Gefen, D. and Ridings, C.M. (2002). Implementation team responsiveness and user evaluation of customer relationship management: A quasi-experimental design study of social exchange theory. *Journal of Management Information Systems*, 19 (1), 47–69.
- Gill, P.J. (1999). Application development: Business snapshot – business modelling tools help companies align their business and technology goals. *Information week*.
- Gosain, S., Lee, Z. and Kim, Y. (2005). The management of cross-functional inter-dependencies in ERP implementations: Emergent coordination patterns. *European Journal of Information Systems*, 14 (4), 371-387.
- Grant, G.G. (2003). Strategic alignment and enterprise systems implementation: The case of Metalco. *Journal of Information Technology*, 18 (3), 159–175.
- Häkkinen, L. and Hilmola, O.-P. (2008). ERP evaluation during the shakedown phase: Lessons from an after-sales division. *Information systems journal*, 18 (1), 73-100.
- Hwang, Y. (2005). Investigating enterprise systems adoption: Uncertainty avoidance, intrinsic motivation, and the technology acceptance model. *European Journal of Information Systems*, 14 (2), 150-161.

- Irani, Z., Sharif, A.M. and Love, P.E.D. (2005). Linking knowledge transformation to information systems evaluation. *European Journal of Information Systems*, 14 (3), 213-228.
- Karimi, J., Somers, T.M. and Bhattacharjee, A. (2007). The impact of ERP implementation on business process outcomes: A factor-based study. *Journal of Management Information Systems*, 24 (1), 101-134
- Karuppan, C.M. and Karuppan, M. (2008). Resilience of super users' mental models of enterprise-wide systems. *European Journal of Information Systems*, 17 (1), 29-46.
- 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), 59-85.
- Lee, Z. and Lee, J. (2000). An ERP implementation case study from a knowledge transfer perspective. *Journal of Information Technology*, 15 (4), 281-288.
- Liang, H. and Xue, Y. (2004). Coping with ERP-related contextual issues in SMEs: A vendor's perspective. *Journal of Strategic Information Systems*, 13 (4), 399-415.
- Markus, M.L. (2001). Toward a theory of knowledge reuse: Types of knowledge reuse situations and factors in reuse success. *Journal of Management Information Systems*, 18 (1), 57-93.
- Markus, M.L. (2004). Technochange management: Using IT to drive organizational change. *Journal of Information Technology*, 19 (1), 4-20.
- Markus, M.L., Axline, S., Petrie, D. and Tanis, C. (2000). Learning from adopters' experiences with ERP: Problems encountered and success achieved. *Journal of Information Technology*, 15 (4), 245-265.
- Markus, M.L. and Tanis, C. (2000). The enterprise systems experience – from adoption to success. *Framing the Domains of IT Research: Glimpsing the Future through the Past*. Pinnaflex Educational Resources, Cincinnati, OH, 173-207.
- Newell, S., Swan, J.A. and Galliers, R.D. (2000). A knowledge-focused perspective on the diffusion and adoption of complex information technologies: The BPR example. *Information Systems Journal*, 10 (3), 239-259.
- Ng, C.S.-P. and Gable, G.G. (2010). Maintaining ERP packaged software - a revelatory case study. *Journal of Information Technology*, 25 (1), 65-90.
- Nonaka, I. and Konno, N. (1998). The concept of 'Ba': Building a foundation for knowledge creation. *California Management Review*, 40 (3), 40-54.
- Oliver, D. and Romm, C. (2002). Justifying enterprise resource planning adoption. *Journal of Information Technology*, 17 (4), 199-213.
- Ranganathan, C. and Brwon, C.V. (2006). ERP investments and the market value of firms: Toward an understanding of influential ERP project variables. *Information Systems Research*, 17 (2), 145-161
- Robey, D., Ross, J.W. and Boudreau, M.-C. (2002). Learning to implement enterprise systems: An exploratory study of the dialectics of change. *Journal of Management Information Systems*, 19 (1), 17-46.
- Sedera, D. and Gable, G.G. (2010). Knowledge Management Competence for Enterprise System Success. *Journal of Strategic Information Systems*, 19 (4), 296-306.
- Sharma, R. and Yetton, P. (2007). The contingent effects of training, technical complexity, and task interdependence on successful information systems implementation. *MIS Quarterly*, 31 (2), 219-238.
- Sia, S.K., and Soh, C. (2007). An assessment of package-organisation misalignment: Institutional and ontological structures. *European Journal of Information Systems*, 16 (5), 568-583.
- Soh, C. and Sia, S.K. (2004). An institutional perspective on sources of ERP package-organisation misalignments. *Journal of Strategic Information Systems*, 13 (4), 375-397.
- Srivardhana, T. and Pawlowski, S.D. (2007). ERP systems as an enabler of sustained business process innovation: A knowledge-based view. *Journal of Strategic Information Systems*, 16 (1), 51-69.
- Staehr, L. (2010). Understanding the role of managerial agency in achieving business benefits from ERP systems. *Information systems journal*, 20 (3), 213-238.
- Sumner, M. (2000). Risk factors in enterprise-wide/ERP projects. *Journal of Information Technology*, 15 (4), 317-327.
- Swanson, E.B. (2010). Consultancies and capabilities in innovating with IT. *Journal of Strategic Information Systems*, 19 (1), 17-27.

- Swanson, E.B. and Wang, P. (2005). Knowing why and how to innovate with packaged business software. *Journal of Information Technology*, 20 (1), 20-31
- Topi, H., Lucas, W. and Babaian, T. (2006). Using informal notes for sharing corporate technology know-how. *European Journal of Information Systems*, 15 (5), 486-499.
- Van Fenema, P.C., Koppius, O.R. and van Baalen, P.J. (2007). Implementing packaged enterprise software in multi-site firms: Intensification of organizing and learning. *European Journal of Information Systems*, 16 (5), 584-598.
- Vaast, E. and Walsham, G. (2009). Trans-situated learning: Supporting a network of practice with an Information Infrastructure. *Information Systems Research*, 20 (4), 547-564.
- Volkoff, O., Elmes, M.B. and Strong, D.M. (2004). Enterprise systems, knowledge transfer and power users. *Journal of Strategic Information Systems*, 13 (4), 279-304.
- Wagner, E.L. and 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.
- Wang, E.T.G., Klein, G. and Jiang, J.J. (2006). ERP misfit: Country of origin and organizational factors. *Journal of management information systems*, 23 (1), 263-292.
- Wang, P. and Ramiller, N.C. (2009). Community learning in information technology innovation. *MIS Quarterly*, 33 (4), 709-734.
- Webster, J. and Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, 26 (2), xiii-xxiii.
- Wei, H.-L., Wang, E.T.G. and Ju, P.-H. (2005). Understanding misalignment and cascading change of ERP implementation: A stage view of process analysis. *European Journal of Information Systems*, 14 (4), 324-334.