IMPACT OF IT INTERNAL RELATIONSHIP MANAGEMENT ON IT INTERNAL SERVICE QUALITY AND IT INTERNAL USER SATISFACTION: A SOCIAL CAPITAL PERSPECTIVE

Lin Jia, Terry Byrd, College of Business, Auburn University, Auburn, AL, 36849
lzj0011@auburn.edu, byrdter@auburn.edu, and 3348446483, 3348446543

ABSTRACT

Information Technology (IT) investment accounts for a large part in enterprises' investments and IT is becoming more and more important in employees' daily work. IT internal relationship management will contribute to IT internal service quality and IT internal user satisfaction, two important measurements of IT success. In this study, IT internal relationship management was examined from the social capital perspective, and the consequences of IT internal relationship management was also explored. By analyzing the data collected from an online survey, we found that three dimensions of IT internal relationship management have positive and significant effects on IT internal service quality, which has positive effect on IT internal user satisfaction. Theoretical and managerial implications were also discussed.

Keywords: IT internal relationship management; IT internal service quality; IT internal user satisfaction; Social capital.

1 INTRODUCTION

IT investment accounts for a large part in enterprises' investments while most enterprises cannot get the anticipated advantages. The inefficiency of information systems (IS) development and ineffectiveness of IS have been attributed, at least partly, to the poor relationship between business members and IS colleagues (Doherty & King, 2001; Peppard & Ward, 1999; Poulymenakou & Holmes, 1996; Reich & Benbasat, 2000; Ward & Peppard, 1996). IT department needs to examine how it can increase the quality of service so that it can increase users' productivity and consequently that of the organization through better service. However, most relationship management programs, such as customer relationship management, enterprise resource planning, and supply chain management have paid very little attention to the relationships that underpin those processes, or to the intangible – relationship – assets embedded in them (Galbreath, 2002). Thus, IT relationship management is proposed to improve the collaboration between IT and business.

Sun, Fang, Lim, Huang, and Straub (2010) defined IT service as the joint application of specialized competences in the IT and the business domains through deeds, processes and performance for the benefits of IT users. The definition highlights the collaborative, relational nature for IT service production and acknowledges the joint role of users and IT units as value co-creators. Thus, the concept of social capital was introduced to highlight the importance of a

network of strong, personnel relationships developed over time across groups to provide the basis for trust, cooperation, and collective action in communities (Hatzakis, 2004).

This study focuses on the effect of IT internal relationship management on the quality of services provided by IT department to other business departments. The research question is whether IT internal relationship management affects the quality of internal IT service and internal IT users' satisfaction with the IT service. The structure of the paper is as follows. In the next section, we discuss relevant terminologies and theory, including IT internal relationship management from the perspective of social capital theory, IT internal service quality, and IT internal user satisfaction. Then, the hypotheses are developed. After that, the data is collected and analyzed to test the conceptual model. Finally, key findings and implications are presented. In the last section, limitation of the study and future directions for research are also presented.

2 THEORY BACKGROUND

2.1 IT Internal Relationship Management and Social Capital Perspective

IT becomes so important that it should be integrated into every link in the business process; but the fact is that other departments always think ill of the IT department. The gap between IT and business is an important reason leading to IT application failure. Relationship management has been initiated to bridge this gap between IT and business (Henderson, Subramani, & Iacono, 1995). Varey and Lewis (2000) defined internal relationship management as "the process of managing all critical internal relationship, strongly affecting the critical external relationships, by identifying, maintaining, developing and, when necessary, terminating these internal relationships". Based on this definition, IT internal relationship management is the process of managing the relationship between IT department and IT internal users. IT internal users here are those employees from departments other than IT department who are in need of IT service provided by the IT department.

Social capital is the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individual or social units (Nahapiet & Ghoshal, 1998). Social capital is composed of structural social capital, relational social capital, and cognitive social capital (Nahapiet & Ghoshal, 1998). Recently, social capital theory is applied to relationship management research. Hatzakis (2004) established the impact of relationship management on dimensions of social capital. Hatzakis asserted that relationship management has a positive impact on the levels of trust, reciprocity, mutual understanding and shared language as well as on the extent and interdependence of work relationship between business and IT. Hatzakis and Lycett (2005) proposed that relationship management will positively impact social outcomes, such as access to others' knowledge and resources, as well as developing greater expectancy, motivation and capability to combine knowledge and resources, by improving the social capital dimensions. In this study, IT internal relationship management is reflected by three dimensions of social capital.

2.2 IT Internal Service Quality

IT service quality is the quality of the support that IT users receive from the IT department and IT support personnel (Petter, Delone, & Mclean, 2008). The definition is adopted in this study. Ross, Beath, and Goodhue (1996) summarized several objectives of IT management practices, including better aligning IT products and services with the firm's strategic objectives, delivering solutions faster, and providing high-quality, cost-effective support. Additionally, Garrity and Sanders (1998) proposed that service quality depends on user satisfaction, prompt service delivery, and the IT department's ability to remain under budget. Responsiveness and on-time delivery are also extracted from SERVQUAL instrument (Kang & Bradley, 2002). Based on the literature review, IT internal service quality is constructed as the secondary reflective construct of responsiveness, on-time delivery, and cost efficiency in this study.

Responsiveness means that the IT department has the willingness and capability to provide service for IT users (Parasuraman, Zeithaml, & Berry, 1985). Helen Kang named responsiveness "people skill" in their research (Kang & Bradley, 2002). On-time delivery means that IT service is delivered by IT department to IT users within a reasonable timeframe. The importance of on-time delivery is well supported by Breshnahan (1996), Garrity and Sander (1998), and Jayasuriya (1998). Cost efficiency means that the IT service can be provided, delivered, and implemented under budget. It is interpreted in three aspects: the cost of providing or sharing information between IT user and IT member about a difficulty is low, the cost of delivering the service is low, and IT users sufficiently utilized resources they already have in order to implement the solution that the IT department provided.

2.3 User Satisfaction

Service quality is variously defined as a component of user satisfaction and vice versa (Cullen, 2001). In the updated D&M IS success model, high service quality can lead to high user satisfaction (Delone & McLean, 2003). However, the final objective of IT department is to satisfy IT internal users, and then affect external customer satisfaction. IT user satisfaction is considered as a different construct from IT service quality in this study. According to the definition of Au, Ngai, and Cheng (2008), end-user satisfaction is end-user's overall affective and cognitive evaluation of the pleasurable level of consumption-related fulfillment experienced with IS. IT user satisfaction here is defined as the overall affective and cognitive evaluation of IT users regarding their experience related with IT service. By literature review, the conceptual model is proposed as following.
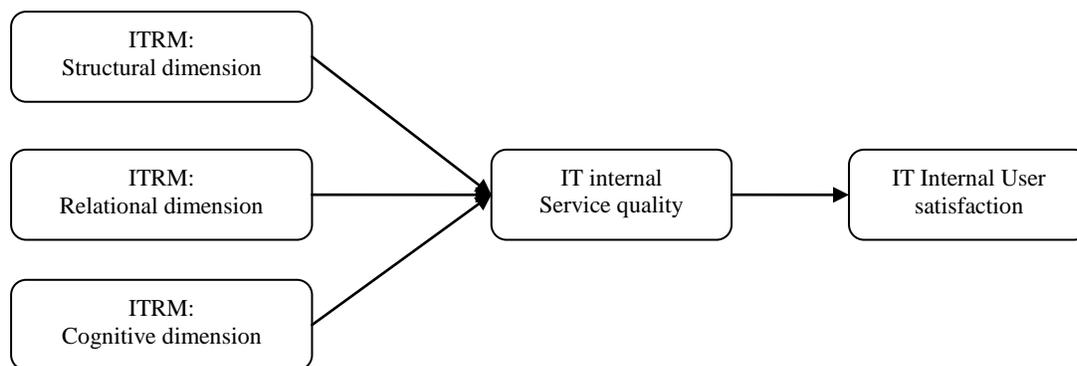

Figure 1. Conceptual model

3 HYPOTHESIS DEVELOPMENT

3.1 Relationship between IT Internal Relationship Management and IT Internal Service Quality

Success of IT service requires ongoing interaction and tighter collaboration between the IT service provider and the IT users (Carr, 2006; Jia, Reich, & Pearson, 2008; Montoya, Massey, & Khatri, 2010). Thus, it is necessary that IT service users and the firm's IT department interact in an effective and efficient way so that each part is accurately informed (Schlosser, Wagner, Beimborn, & Weitzel, 2010). Relationship management emphasizes the collaboration between two parties and thus brings forth value-adding (Sheth & Parvatiyar, 2002). IT internal relationship management reflected by three dimensions of social capital stimulates the communication between IT department and other departments and facilitates accesses to broader sources of information and improves the information's quality, relevance, and timeliness (Adler & Kwon, 2002). This kind of information is needed by IT staffs to provide faster and more solution-oriented services that meet the needs of the client (Schlosser et al., 2010).

Structural dimension of IT internal relationship means that there are more communication chances and interaction ties between IT staffs and members from other departments. IT staffs are more willing to provide high-quality service for those with whom they have more communication chances and interaction ties. Structural dimension of IT internal relationship management also contributes to value creation by providing IT department and other departments with access for exchanging information and knowledge in a timely manner (Sun et al, 2010), which is a prerequisite for timely IT service. Thus,

H1. Structural dimension of IT internal relationship management will have independent positive effects on IT internal service quality.

One goal of IT relationship management is to stimulate communication and trust in order to build Business-IT partnership. Surprenant and Soloman (1987) verified that communication between internal service provider and internal user can improve the mutual trust between IT department and business departments. Thus, relational dimension of IT internal relationship management means the reciprocal and intimate relationship between IT staffs and members from other departments, letting people rely on each other, be more responsiveness to offer help, and perform in a better way, because they do not want to disappoint the others in such a well-established relationship. Additionally, trust stimulates the knowledge sharing, which is important for high service quality (Schlosser et al., 2010). Thus,

H2. Relational dimension of IT internal relationship management will have independent positive effects on IT internal service quality.

The cognitive dimension of IT internal relationship management represents the resources providing shared meaning, goals, and understanding between the network members (Nahapiet & Ghoshal, 1998). The presence of shared goals and shared language promotes mutual understanding and exchange of ideas, and can considered the force that holds people together and lets them share what they know (Chow & Chan, 2008; Sun et al, 2010). IT departments and

other departments then can associate each other's views in familiar ways that increase mutual understanding and empathy. Thus, IT staffs and members from other departments are more likely to anticipate of the collaboration value and have the capability to collaborate. Additionally, cognitive dimensions can cascade information about management decisions that bring clarity and quick responses that speed up work coordination processes (Hatzakis, 2004). Then IT departments can know more information about the problem, and can provide prompt IT service in a cost-effective way. Thus, it is anticipated that:

H3. Cognitive dimension of IT internal relationship management will have independent positive effects on IT internal service quality.

3.2 Relationship between IT Internal Service Quality and IT Internal User Satisfaction

The relationship between service quality and user satisfaction is well supported by the D&M IS success model (Delone & McLean, 2003). Delone and McLean (2003) added the service quality construct to their former model and updated the D&M IS success model, in which high quality of service will lead to more IT use and user satisfaction. IT internal users rely on IT to finish tasks efficiently and effectively. Thus, it is reasonable that IT internal users will feel satisfied if IT department has the willingness and capability to provide other departments with timely and on budget IT service.

H4. IT internal service quality will have positive effect on IT internal user satisfaction.

4 RESEARCH METHODOLOGY

4.1 Measurement Development

We tried to adapt existing validated measures from prior studies for the constructs in this study, whereas new items were developed for the cost efficiency construct. We have also made some minor modifications to the adopted measures in order to apply them to this study. A pretest of the questionnaire was performed with help of PhD students and professors in Management. The questionnaire is in Chinese, and thus, back-translation together with two PhD students, one of which is in Management and the other one is in English Education, is done to make sure the questionnaire in Chinese expresses the same meaning as the original English questionnaire. All of the items were measured on a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). The specific items used in this study are shown in the Appendix.

The independent variables are three dimensions of IT internal relationship management: structural, relational, and cognitive dimension. The structural dimension was assessed with items adapted from Chiu, Hsu, and Wang (2006). These items measured social interaction ties of social capital. The relational social capital includes assets that are rooted in relationships such as trust and trustworthiness. It was assessed with items adapted from Chiu et al. (2006) and Sarkar, Echambadi, Cavusgil, and Aulakh (2001). These items measured trust, reciprocal commitment, and identification of social capital. The cognitive social capital is embodied in attributes like a shared code or a shared paradigm that facilitates a common understanding of collective goals and proper ways of acting in a social system (Tsai & Ghoshal, 1998). It was assessed with items from

Chiu et al. (2006) and Chow and Chan (2008). These items measured shared language and shared vision of social capital.

The dependent variables are IT internal service quality and IT internal user satisfaction. IT internal service quality is a secondary reflective construct of responsiveness, on-time delivery, and cost efficiency. Responsiveness and On-time delivery are measured by six items adopted from Kang and Bradley (2002). Cost efficiency items are designed based on relevant literature. IT internal user satisfaction is measured by four items adopted from Au et al. (2008).

The model incorporates control variables that may influence IT service quality and user satisfaction: age, gender, education background, and position of respondent, IT unit size, and firm size.

4.2 Data Collection

The research model was tested with data collected from QQ, the biggest online social network provided by Tecent in China through an online survey. Four online IT management interest groups on this network were chosen. A message containing the URL that linked to the web-based online survey instrument was sent to the members of the four groups. The online questionnaire consisted of two sections. The first section set out to capture the general profiles of informants, including the control variables, and the second part includes items of all constructs.

395 survey invitations were sent out. In all, 153 questionnaires were collected. Response rate is 38.73%. There is no missing data, because all questions in the online questionnaire are mandatory. There were five invalid questionnaires because the respondents chose the same answers to almost all items. The exclusion of five invalid questionnaires resulted in a total of 148 complete and valid ones for data analysis. Table 1 summarizes the demographic information of the respondents.

Table 1 Demographic characteristics of Respondents (N=148)

		Number	Percentage (%)
Gender	Male	95	64.2
	Female	53	35.8
Position	Ordinary staff	97	65.5
	First-line managers	33	22.3
	Middle managers	12	8.1
	Top managers	6	4.1
Education background	College or below	17	11.5
	Bachelor degree	88	59.5
	Graduate degree	43	29.1
Age	≤ 21	4	2.7
	22-28	109	73.6
	29-35	27	18.2
	≥ 36	8	5.4

5 DATA ANALYSES AND RESULTS

SmartPLS 2.0 is used to analyze the data (Ringle, Wende, & Will, 2005). A sample 5000 (DF=4999) in bootstrapping is used as suggested by Henseler, Ringle, and Sinkovics (2009). The item parceling is used to maximize degrees of freedom, simplify the interpretation of the measurement model parameters, and avoid identification problems for latent variables structural model (Bandalos & Finney, 2001; Hom et al., 2009). Yuan, Bentler, and Kano (1997) suggested that a preliminary analysis is not necessary if we perform parceling based on empirical knowledge that has already indicated which variables are good indicators of a latent construct. Following the internal-consistency approach proposed by Kishton and Widaman (1994), three parcels were created IT internal service quality.

5.1 Measurement Validation

Following recommended two-stage analytical procedures (Anderson & Gerbing, 1988; Hair, Anderson, Tatham, & Black, 1998), confirmatory factor analysis was first conducted to assess the measurement model; then, the structural relationships were examined. A variety of statistics, including inter-construct correlations, average variance extracted (AVE), and composite reliability (ρ_c) are shown in Table 2 and Table 3.

Coefficient Alpha value ranges from 0.76 to 0.89, providing evidence of measure reliability (Cronbach, 1971). Composite reliability (ρ_c) scores are all above 0.84, demonstrating internal consistency of the measures. As shown in Table 2, the square root of all AVEs is much larger than all other cross correlations. Jointly, these findings suggest adequate convergent and discriminant validity.

Table 2. Latent Variable Reliability and Validity Statistics (PLS)

	R square	ρ_c	Cronbachs α	AVE
ITRM: Structural dimension	N/A	0.87	0.80	0.62
ITRM: Relational dimension	N/A	0.84	0.76	0.58
ITRM: Cognitive dimension	N/A	0.84	0.76	0.58
IT internal service quality	0.45	0.93	0.89	0.82
IT internal user satisfaction	0.59	0.94	0.82	0.67

Table 3. Latent Variable Correlations (PLS)

|	Mean	SD	1	2	3	4	5
1. ITRM: Structural dimension	4.35	1.26	**0.79**				
2. ITRM: Relational dimension	5.13	1.12	0.50	**0.76**			
3. ITRM: Cognitive dimension	4.84	1.11	0.42	0.56	**0.76**		
4. IT internal service quality	4.79	1.14	0.48	0.60	0.56	**0.90**	
5. IT internal user satisfaction	4.40	1.23	0.36	0.54	0.50	0.75	**0.82**

Note. Bold diagonal elements are the square root of AVE.

5.2 Structural Model

A model, including three dimensions of IT internal relationship management, three item-parcels of IT internal service quality, IT internal user satisfaction, and all control variables, is constructed to test all four hypotheses. All results are summarized in Figure 2. The R^2 value of 0.589 in the model indicates that the model explains a substantial amount of variance for IT internal user satisfaction.

As shown in Figure 2, the effect of structural dimension of IT internal relationship management on IT internal service quality is significant (b=0.187, P<0.05), thus supporting H1. The effect of relational dimension of IT internal relationship management on IT internal service quality is significant (b=0.334, P<0.001), thus supporting H2. The effect of cognitive dimension of IT internal relationship management on internal IT service quality is significant (b=0.296, P<0.001), thus supporting H3. The effect of IT internal service quality on internal IT user satisfaction is significant (b=0.751, P<0.001), thus supporting H4.

Control variables are included in the model, in which gender is a dummy coding variable; education background is transformed to two dummy coding variables: college & below and bachelor; and position of respondent is transferred to three dummy coding variables: employee, first line manager, and middle manager. All other control variables use quantitative category scale in the instruments, and thus, they are replaced with median of each scale. All control variables are not significant in the model. The significant of hypotheses are summarized in Table 4.
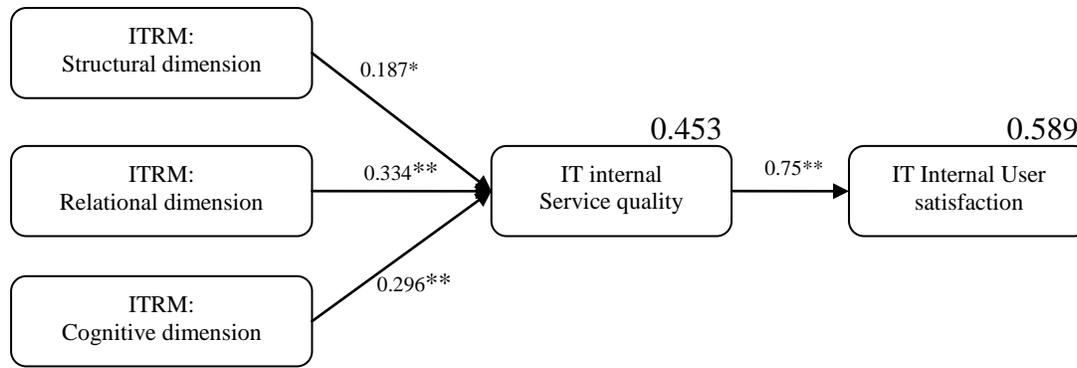
Note. * Significant at P<0.05 level; ** Significant at P<0.001 level; Variance explained shown above box.

Figure 2. PLS Results for the Research Model

Table 4. Summary results of hypotheses testing

	Hypothesized path	Path coefficient	t-Value	Empirical evidence
H1	ITRM: Structural dimension→IT internal service quality	0.187	2.513	Supported
H2	ITRM: Relational dimension→IT internal service quality	0.334	3.71	Supported
H3	ITRM: Cognitive dimension→IT internal service quality	0.296	3.705	Supported
H4	IT internal service quality→IT internal user satisfaction	0.75	13.009	Supported

Note: t-value > 1.96, p < 0.05, t-value > 2.58, p < 0.01, t-value > 3,29, p < 0.001, df=4999.

6 DISCUSSION

6.1 Key Findings

The study has several key findings. First, apply social capital theory to IT internal relationship management. IT internal relationship management is reflected by structural, relational, and cognitive dimensions of social capital theory. Second, an instrument of IT service quality is designed since SERVQUAL has unstable dimensions and perception-only measures are recommended by Kettinger, Park, and Smith (2009). Third, the study proposes and validates the impact of IT internal relationship management from social capital perspective on IT internal service quality and IT internal user satisfaction. Each dimension of IT internal relationship management has significant positive impact on IT internal service quality, which also has significant positive impact on IT internal user satisfaction.

6.2 Implication for Theory

(1) Implications for research on IT internal relationship management

IT internal relationship management contributes to bridge the gap between IT department and other departments. This study applied the social capital theory to IT internal relationship

management, and supported the idea to take the social capital theory as the theory background of IT relationship management research.

(2) Implications for research on IT service quality and IT user satisfaction

SERVQUAL is the most popular instrument to measure service quality, in which IT service quality is measured as the discrepancy between customers' perception and expectation. However, many studies suggest that SERVQUAL has unstable dimensions (Kang & Bradley, 2002; Landrum & Prybutok, 2004, 2009). Most recent studies have pointed out that perception-only measure is more appropriate for empirical studies (Cronin, Brady, & Hult, 2000; Kettinger et al., 2009). This study attempts a new instrument to measure IT service quality, and the instrument is measured from three aspects: responsiveness, on-time delivery, and cost efficiency. Additionally, service quality and user satisfaction are two important IT success measurements in the updated D&M IS success model. The study concludes that IT internal relationship management is an antecedent of service quality, and thus the user satisfaction. Hence, the study serves as a supplement of the updated D&M IS success model.

6.3 Implication for Practice

In this study, IT service quality is constructed as a secondary reflective variable responsiveness, on-time delivery, and cost-efficiency. The measurements reflect the empirical survey about IT managers of Subramaniam (2007). The positive relationship between three dimensions of IT internal relationship management and IT internal service quality are supported in the study. High level of IT internal service quality also leads to high level of IT internal user satisfaction, which will be transferred to external customers of the company. Customer satisfaction is well accepted as a good predictor of sales and profits. Thus, managers should devote themselves to building high quality IT-business relationships. IT internal relationship management is a practical initiative to build the relationship between IT members and business department members. Measurements of IT internal relationship management direct us to build the relationship.

Managers should focus on three main dimensions: structural dimension, relational dimension, and cognitive dimension. Managers should be responsible for the building of the relationship in the following ways: (a) managers should provide ways to connect members from IT department and business departments. For example, informal organizations, regular meeting in which members from both IT department and business departments, and team composed of members from both IT department and business departments. (b) Managers should help employees build the belief of reciprocity and belongingness. (c) Managers should strive to build the common ambitions and vision at work by founding coworker teams composed of members from both IT department and business departments. Then they can have the same understanding about the strategy and their job. (d) Managers also need to stimulate the standardization of jargons and communication patterns. Thus, members from both sides just need to follow the procedure to communicate.

6.4 Limitations

There are some limitations in the study.

(1) All data of the constructs in the conceptual model will be collected through self-report, so there is a potential for common method biases (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).
(2) The small sample size and the limited source of samples restrict the generalization of the findings of this study. Data analysis will be done by using PLS, which is especially appropriate to analyze small sample size data. Future research is recommended to collect data across the industries to secure more generalizability.
(3) The scope of the research is limited to the relationship between IT internal relationship management and IT internal service quality. In nowadays, more and more companies try to outsourcing some IT functions. Topic about external IT relationship management and external IT service quality should be researched in the future.

APPENDIX

(1) IT internal relationship management from social capital perspective:
Structural dimension:
SD1.There are close social relationships between members from business department and IT department.
SD2.Members from business department and IT department spend a lot of time interacting with each other.
SD3.Members from business department and IT department know each other on a personnel level.
SD4.There is frequent direct communication between members from business department and IT department.
Relational dimension:
RD1.IT department and business department believe that they can get help from the other side whenever they need it.
RD2. IT department and business department are willing to dedicate whatever people and resources it took to solve each other's difficulty.
RD3. I know that members from other departments will help me, so it's only fair to help members from other departments.
RD4.I feels a sense of belonging toward the company.
Cognitive dimension:
CD1.Members from business department and IT department share the same ambitions and vision at work.
CD2. Members from business department and IT department are always enthusiastic about pursuing collective goals and mission of the whole organization.
CD3. Members from business department and IT department use common terms or jargons.
CD4. Members from business department and IT department use understandable communication patterns during the communication.
(2) Internal IT service quality
Responsiveness (RE)
RE1. IT department members show a sincere interest in solving your IT problems.
RE2. IT department members understand your specific requests of IT service.
RE3. IT services are available during business hours.

On-time delivery (OD)

OD1. IT internal user receives requested services within a reasonable timeframe
OD2. IT internal user receives requested service right the first time
OD3. IT internal user receives prompt services without delays
Cost efficiency (CE):
CE1. Business department members can share information about IT difficulties with IT
department members in a low cost way.
CE2.The IT service is delivered in a low cost way.
CE3. The IT service always can be achieved by using existing firm resources sufficiently.
(3) IT internal user satisfaction (US):
US1. IT internal user is very contented with the information technology service.
US2. IT internal user is very pleased with the information technology service.
US3. IT internal user feels delighted with the information technology service.
US4. Overall, IT internal user is very satisfied with the information technology service.

REFERENCES

Adler, P. S. & Kwon, S.W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review, 27* (1), 17-40.

Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 41-423.

Au, N, Ngai, E.W.T., & Cheng T.C.E. (2008). Extending the understanding of end user information systems satisfaction formation: An equitable needs fulfillment model approach. *MIS Quarterly,32*(1),43-66.

Bandalos, D. L., and Finney, S. J. 2001. *Item Parceling Issues in Structural Equation Modeling, in Advanced Structural Equation Modeling: New Developments and Techniques*, G. A. Marcoulides and R. E. Schumacker (eds.), Mahwah, NJ: Lawrence Erlbaum, pp. 269-296.

Breshnahan, J. (1996). Mixed message. *CIO Magazine, 9*(15), 74-78.

Carr, C.L. (2006). Reciprocity: The golden rule of IS-User service relationship quality and cooperation. *Communications of the ACM, 49*(6), 77-83.

Chiu, C.M., Hsu, M.H., & Wang, T.G. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42, 1872-1888.

Chow, W. S., & Chan, L.S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information & Management*, 45, 458-465.

Cronbach, L.J. (1971). Test validation. In Thorndike R.L., (Ed.), *Education measurement* (pp. 443-507), Washington, D.C.: American Council on Education.

Croin, J.J., Brady, M.K., & Hult, G.T.M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*(2), 193-218.

Cullen, R. (2001).Perspectives on User satisfaction surveys. *Library Trends, 49*(4), 662-686.

Delone, W.H. & McLean, E.R. (2003). The Delone and Mclean model of information system success: A ten year update. *Journal of Management Information System, 19*(4),31-47.

Doherty, N.F. & King, M. (2001). An investigation of the factors affecting the successful treatment of organizational issues in systems development. *European Journal of Information Systems*, 10, 147-160.

Galbreath, J. (2002). Success in the Relationship Age: Building quality relationship assets for market value creation. *The TQM Magazine, 14*(1), 8-24.

Garrity, E.J. & Sanders, G.L. (1998).*Information systems success measurement*. Idea group publishing, PA, USA.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate data analysis* (5th edition), Prentice Hall, Englewood Cliffs, NJ.

Hatzakis, T. (2004). A social capital approach to IT relationship management evaluation. *Proceedings of the 37th Hawaii International Conference on System Science.*

Hatzakis T & Lycett M. (2005).Towards the development of a social capital approach to evaluating change management interventions. *European Journal of Information Systems*, 14, 60-74.

Henderson, J.C.,Subramani, M., & Iacono, S. (1995). Bridging the IS-line interface:the role of the relationship manager. *Proceeding of the first Americas Conference on information system. Pittsburgh, Pennsylvania, 25-27.*

Henseler, J., Ringle, C.M., & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing, in: Sinkovics, R. R. & Ghauri, P. N. (eds.), *Advances in International Marketing*, 20, 277-320.

Hom, P.W., Tsui, A.S., Wu, J.B., Lee, T.W., Zhang, A.Y., Fu, P., & Li, L. (2009). Explaining employment relationships with social exchange and job embeddedness. *Journal of Applied Psychology*, 94(2), 277–297.

Jayasuriya, R. (1998).Measuring service quality in IT services: Using service encounters to elicit quality dimensions. *Journal of Professional Service Marketing, 18*(1), 11-23.

Jia, R., Reich, B.H., & Pearson, J.M. (2008). IT service climate: an extension to IT service quality researc. *Journal of Association for Information Systems, 9*(5), 294-320.

Kang, H. & Bradley, G. (2002).Measuring the performance of IT service: an assessment of SERVQUAL. *International journal of Accounting Information*, 3, 151-164.

Kettinger, W.J., Park, S.H.S., & Smith, J. (2009). Understanding the consequences of information systems service quality on IS service reuse. *Information & Management,   46*(6), 335-341.

Kishton, J. M., & Widaman, K. F. (1994). Unidimensional versus domain representative parceling of questionnaire items: An empirical example. *Educational and Psychological Measurement*, 54, 757–765.

Landrum, H. & Prybutok, V.R.(2004).A service quality and success model for the information service industry. *European Journal of Operational Research, 156*(2), 628-642.

Landrum, H. & Prybutok, V.R. (2009).Measuring IS system service quality with SERVQUAL: User's perceptions of relative importance of the five SERVPERF dimensions. *International Journal of an Emerging Transdiscipline*, 12, 17-34.

Montoya, M.M., Massey, A.P., & Khatri, V. (2010). Connceting IT service operations to services marketing practices. *Journal of Management Information System, 26*(4), 65-85.

Nahapiet, J & Ghoshal, S. (1998).Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review, 23*(2), 242-266.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41-50.

Peppard, J. & Ward, J.(1999).'Mind the gap': Diganosing the relationship between the IT organization and the rest of the business.*The Journal of Strategic Information System, 8*(1), 29-60.

Petter, S.,Delone, W., & Mclean, E.(2008).Measuring information system success: Models, dimensions, measures, and interrationships. *European Journal of Information Systems*, 17, 236-263.

Podsakoff, P., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies, *Journal of Applied Psychology, 88*(5), 879-903.

Poulymenakou, A. & Holmes, A. (1996).A contingency framework for the investigation of information systems failure. *European Journal of Information Systems, 5*(1), 34-46.

Reich, B.H. & Benbasat, I. (2000).Factors that influence the social dimension of linkage between business and information technology objectives. *MIS Quarterly, 24*(1), 81-113.

Varey, R.J. & Lewis, B.R. Internal relationship management: Broadening the scope of internal marketing. In Varey, R.J. & Lewis, B.R. (Eds), *Internal marketing: Directions for management* (pp. 238-250). London: Routledge.

Ringle, C.M., Wende, S., & Will, A. (2005). SmartPLS 2.0M3 (beta), accessed March 13, 2012, http://www.smartpls.de.

Ross, J.W., Beath, C.M., & Goodhue, D.L. (1996).*Developing long-term competitiveness through information technology assets*.Working paper,MIT.

Sarkar, M.B., Echambadi, R., Cavusgil, S.T., & Aulakh, P.S. (2001). The influence of complementarity, compatibility, and relationship capital on alliance performance. *Journal of the Academy of Marketing Science, 29*(4), 358-373.

Schlosser, F., Wagner, H.T., Beimborn, D. & Weitzel, T. (2010).The role of internal Business/IT alignment and IT governance for service quality in IT outsourcing arrangements. *Proceedings of the 43rd Hawaii International conference on System Science.*

Sheth, J. & Parvatiyar, A. (2002).Evolving relationship marketing into a discipline. *Journal of Relationship Marketing*, 1(1), 3-16.

Subramaniam, R. (2007). *A review of internal marketing and information technology service Management in Cargill Singapore*. University of Aberdeen, Aberdeen, UK.

Sun, Y.Q., Fang, Y.L., Lim, K., Huang J., & Straub, D. (2010).User satisfaction with information technology service: A social capital perspective. Manuscript submitted for Information Systems Research.

Surprenant,C.F. & Solomon,M.R. (1987).Predictability and Personalization in the Service Encounter. *Journal of Marketing*, 51, 86-96.

Tsai, W. & Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal, 41*(4), 464-476.

Ward, J. & Peppard, J. (1996).Reconciling the IT/Business relationship: A troubled marriage in need of guidance. *Journal of Strategic Information Systems, 5*(1),37-65.

Yuan, K, Bentler, P. M., & Kano, Y. (1997). On averaging variables in a CFA model. *Behaviormetrika*, 24, 71–83.