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Abstract

The success of an online community relies on the willingness of its members to be a part of and continuously participate within the community. In other words, online communities are successful if members continuously contribute knowledge to the community. In Information System research, few studies exist examining the determinants of continuous knowledge contribution. This paper fills the gap by examining the influence of identity trust and affective commitment on this behavioural intention. This paper investigates continuous knowledge contribution intention within the context of business online communities. The research model is analyzed using Partial Least Square. The research findings reveal that, besides user's level of satisfaction, continuous knowledge contribution intention is mediated by affective commitment and identity trust. This study also provides some insights on how to encourage continuous knowledge contribution intention within business online communities.

Keywords

Continuous knowledge contribution, business online communities, trust, commitment

1. Introduction

An online community can be defined as an informal community which is virtually connected and are glued together by specific area of interest or shared problems (Ardichvili et al., 2003). The success of an online community lies in the hand of its members' decision to continuously participate in the community (Fuller et al., 2007; Kim et al., 2008). Previous studies signal a growing interest towards understanding individual continuous use of information system (IS) behaviour (de Guinea & Markus, 2009; Jaspersen et al., 2005; Saeed & Abdinnour, 2011). Despite the increase in attention, very limited studies have focused on understanding this behaviour within the context of online communities. The understanding of this topic is said to be in its infancy, thus suggesting further examination is required (Cheung & Lee, 2007b).

Based on Commitment-trust theory (Morgan and Hunt, 1994), trust and commitment are positioned as two important variables used to promote and facilitate cooperative conditions. The mediating role of these two constructs have been examined in continuance intention studies (e.g., repurchase and loyalty intention) (Caceres & Paparoidamis, 2007). Based on previous continuous knowledge sharing literature, the correlations between trust and commitment on continuance behaviour have been established (Kim et al., 2011; Wang, 2009), but how these constructs affect continuous knowledge sharing remains unclear. Understanding how trust and commitment mediate members' continuous knowledge contribution intention is important as it may give better understanding on how to encourage continuous knowledge contribution intention within business online communities. Therefore, the main aim of this study is to examine the role of trust and commitment on member's continuous knowledge contribution intention.

The rest of the paper is organized into the following sections. After this introductory section, the following sections analyze the literature on continuous knowledge contribution literature. The third section presents the research model and introduces the hypotheses of this study. The fourth section explains the research methodology. The fifth section presents the research findings and the last section offers some concluding remarks and discusses the research implications and limitations.

2. Continuous Knowledge Contribution within Online Communities

Based on the IS literature, online community usage is different when compared to the usage of other IS (He & Wei, 2009). For instance, online community usage is closely associated with members' act of knowledge sharing. Members use an online community by either seeking or/and contributing knowledge. In the sphere of continuous knowledge contribution context, knowledge contribution is considered as the initial adoption of or participation in an online community and continuous knowledge contribution is the continuance behaviour (Chen, 2007; Jin et al., 2010). This study defines *continuous knowledge contribution as users' repeated act of conveying what they know to the community*.

Despite the substantial attention given by previous studies on the online knowledge sharing topic, very few studies have focused on the issue of continuous knowledge sharing. We believe one possible reason for this lack of study is because continuous knowledge sharing is usually viewed as the extension of knowledge sharing behaviour. According to this view, continuous intention is associated with increase in use of a technology (e.g., more usage, frequent adoption) and can be explained using the same set of antecedents used to examine adoption behaviour (Bhattacharjee, 2001; Hsu et al., 2004).

In the literature on continuous use, there are two schools of thoughts relating to the differences between adoption and continuous use behaviour (Hsu et al., 2004). The first one sees continuance as an extension to acceptance behaviour. This view predicts continuous use behaviour using the same set of motivations to examine adoption behaviour (Hsu et al., 2004, p. 766). Within this school, continuance refers to individual's acceptance behaviour that becomes a part of normal routine activity also known as 'routinization' (Cooper & Zmud, 1990). The second school of thought suggests that post related constructs (e.g., satisfaction and

confirmation) are needed to predict user's continuance intention beyond the technology adoption theories (e.g., Technology Acceptance Model or Diffusion of Innovation Theory) (Bhattacharjee, 2001). This view is rooted in the Expectancy Confirmation Theory that suggests users would re-evaluate their earlier adoption decision during the continuance stage and then decide whether to continue or discontinue using the technology (Oliver, 1980).

This study follows the latter conceptualization of continuous behaviour as it helps to overcome the limited explanation of the acceptance model (Bhattacharjee, 2001; Hsu et al., 2004). The acceptance model does not adequately explain why some users discontinue using the technology after they have initially accepted the technology.

Thus to get an overview of the trend and pattern within continuous knowledge sharing literature, this study conducted a literature analysis on this topic and the findings are as follows:

- a. Majority of previous studies that examined this behaviour use professional online community as the research context. Although both communities (business and professional) serve the same purpose - as a platform to share knowledge, there are differences in terms of theoretical and managerial approaches. For instance, within professional online communities, members knowledge contribution behaviour are more influenced by their professions' norms (Chiu et al., 2006), and members feeling of justice (Fang & Chiu, 2010). Whereas, factors such as commitment and sportsmanship have been identified to be more influential within consumer online communities. Further members within business online communities are more inclined to contribute knowledge because of the fun of helping others (Lee et al., 2006). Therefore giving an indication, those findings within professional online communities might not be directly applicable to business online communities.
- b. Most of the previous studies use continuous knowledge contribution as the dependent variable. It is important to highlight that knowledge sharing is a multi-dimensional behaviour. It can be manifested either by knowledge seeking or knowledge contribution or both. Thus there is a need to be specific in selecting which sub-dimension to focus on as each sub-dimension is influenced by different determinant factors (He & Wei, 2009). Focusing on one dimension of knowledge sharing at a time can give a better understanding of what influence this behaviour. This study focuses on knowledge contribution intention because through continuous knowledge contribution, not only the community will have better likelihood to retain members who are willing to contribute their knowledge or experience with others but also help business online community owners obtain relevant and useful knowledge through their discussions (Jin et al., 2009).
- c. Unlike previous studies, this study examines the role of two factors (e.g., trust and commitment) that is believed to be significantly important to explain continuance behaviour. The extant marketing literature shows that both trust and commitment play an important role as moderating factors that positively influence the relationship between satisfaction and continuance intention. However, to what extent the moderating role of trust and commitment can be extended into a continuous knowledge contribution context is not clear. Therefore, this study will be the first to investigate the moderating effect of these two constructs on members' continuous knowledge contribution intention within business online communities.

In this study, a business online community is defined as *a firm owned online community that supports both generating of product or brand related content that is central to the community*

interest. In this study, member generated content includes the sharing of information, experience, knowledge or solutions to problem that is related to the community interest.

3. Research Model and Hypotheses

Figure 1 depicts the study's research model explaining members' continuous knowledge contribution (CKC) intention within business online communities. Based on the extant literature, this model predicts that member's CKC intention is directly influenced by member's level of satisfaction; and the relationship between satisfaction and CKC intention is positively moderated by affective commitment and identity trust.

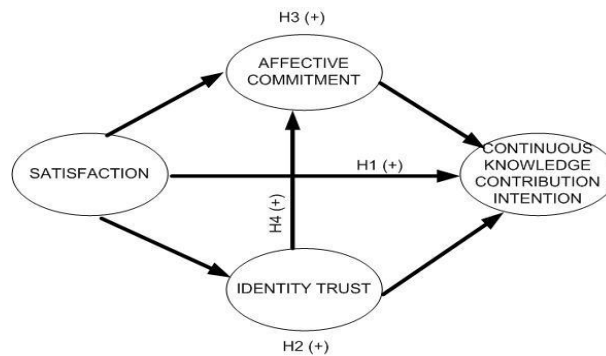


Figure 1: Research Model

3.1 Continuous Knowledge Contribution Intention and Satisfaction

The extant continuous knowledge sharing literature shows satisfaction as an important factor influencing online community members' decision to continuously share their knowledge (Cheung & Lee, 2007a; Jin et al., 2010). Users who are satisfied with the online community are more likely to be involved in activities that are aimed at maintaining their interactions within the community by continuously facilitating or taking part in knowledge sharing activities (Chuo et al., 2010; Ma & Agarwal, 2007). In this study, satisfaction refers to an *evaluative function used to assess members' knowledge contribution expectations using business online communities*. Hence, a business online community member who is satisfied with the community (in term of functionalities or community support) will continuously contribute knowledge within the communities. As such, this study hypothesizes that:

Hypothesis 1: Member's CKC intention within business online communities is positively influenced by members' level of satisfaction.

3.2 Identity Trust

Generally, trust can be defined as individual willingness to be vulnerable to the actions of other members (Ridings et al., 2002). Within the IS literature, trust has been identified as an important construct used to shape individual's acceptable behaviour within the community. and provide positive orientation to do good to others (e.g., by giving reliable comment) (Hsu et al., 2007).

At this stage it is important to highlight that trust can be manifested in three dimensions - economy, knowledge and identity based trust (Hsu et al., 2007). However, for this study only

identity based trust is conceptualized to examine CKC intention. Identity trust refers to *individual trust to others based on members' emotional interactions*. It can be used to facilitate the ongoing activities and help members to understand others needs. Based on this type of trust, members can express their care and concern for others' welfare (Hsu et al., 2007).

For this study, only identity trust is used because previous knowledge sharing studies have empirically proven that economy and knowledge based trust are significant only at the early stage of members' online knowledge sharing behaviour (Hsu et al., 2007). According to these authors the influence of identity trust is not significant at the early stage as this type of trust may influence knowledge sharing behaviour at the next stage (e.g., continuous stage). In the context of continuous use, only the post-adoption related antecedents are to be used to examine continuous intention, thereby not violating the main assumption of continuance paradigm (Bhattacharjee & Barfar, 2011).

In the literature on continuance, previous studies have shown that satisfaction, trust, and continuance intention are positively correlated to each other. For instance, consumer's satisfaction experience using a web site will positively influence consumer's level of trust towards the website (Wang, 2009). Trust had also been identified to encourage user's continuous use intention (Kim et al., 2011). Despite the earlier findings, the role of trust in explaining the relationship between satisfaction and continuance intention is still not clear.

Commitment-trust theory is used as the underlying basis for conceptualizing the role of trust in operationalizing the relationship between satisfaction, trust and CKC intention. This theory positioned trust and commitment as the central key factors moderating relationships marketing (e.g. buyer-seller relationship) (Morgan & Hunt, 1994). The presence of commitment and trust are important to successful relationship effort. Further, when commitment and trust are present, they promote cooperative behaviour (Morgan & Hunt, 1994).

The role of trust as a mediator is also supported by previous studies in the marketing literature. Consumer's overall satisfaction with the product will have a positive impact on consumer's level of trust towards the product. For instance, consumer satisfying experience with the product/services will strengthen the consumer's level of trust towards the product/services (Kim, 2010; Kim et al., 2011). A satisfied consumer who has developed a certain level of trust with the product/manufacture will be more likely to repurchase the products or services (Ha et al., 2010).

Besides that the existence of trust is also important to establish a trusting atmosphere (Chang & Wong, 2010). According to these authors, the existence of trust can moderate individuals' decision to adopt and participate in an e-marketplace. For instance, with trusting relationship it can reduce the expectation of opportunistic behaviour and enhance the degree of safety within the marketplace. In addition, trust has also been identified to moderate the relationship between customer's satisfaction and loyalty (Caceres & Papparoidamis, 2007). For instance, consumers who are satisfied with the seller will be more likely to be loyal if they can trust the seller.

Based on the above discussion, identity trust may act as a mediator to satisfaction in encouraging members' CKC intention within business online communities. Members who are satisfied with

the community will continue contributing knowledge within the business online community if they believe that others will not take advantage of them. Hence, this study hypothesizes:

Hypothesis 2: Identity trust mediates the relationship between satisfaction and CKC intention.

3.3 Affective Commitment

Although the relationship between affective and continuous knowledge sharing has been examined within previous studies, but how affective commitment mediates the relationship between satisfaction and CKC intention is unknown. Within continuous knowledge sharing literature, previous studies have conceptualised affective commitment as having direct influence on continuous knowledge sharing intention (Wang & Datta, 2006; Yen, 2009).

Examining affective commitment beyond the direct relationship may contribute better understanding on the link between satisfaction and continuance intention. Based on Commitment-trust theory, commitment is identified as an important factor that helps buyer to resist attractive short-term alternatives in favour of the long term expected benefits of staying with existing partner (e.g., community) (Morgan & Hunt, 1994).

In the existing continuous use literature, commitment acts as an important mediator to maintain positive behaviour among community members. For instance, consumers increasingly rely on the online community for information and repurchase of products. Without strong sense of cohesiveness and belongingness with other members, members can easily switch to other alternatives community (Kim et al., 2008). Thus only relying on satisfaction will not ensure continuous use of online community because members use online community not only because of the technology but also because of the relationships that emerge from the online interactions (Koh & Kim, 2003).

As with trust, commitment is also a multi-dimensional construct. Commitment can be divided into three types – affective, normative and continuance commitment. However, this study only uses affective commitment as it has been empirically proven to influence continuous intention (e.g. repurchase, loyalty) (Kim et al., 2008; Ma & Yuen, 2010). According to Meyers and Allen (1991) affective commitment refers to “individual’s emotional attachment to, identification with, and involvement in an organization” (p.67).

Based on the above discussion, this study predicts that satisfied members will continuously contribute knowledge within the business online community if they have strong bonding with the community. According to Ma and Yuen (2010) community members will spend more time and effort in continual relationship within the community if they are committed. Hence this study hypothesizes:

Hypothesis 3: Affective commitment mediates the relationship between satisfaction and CKC intention.

Besides that based on commitment-trust theory, member’s sense of commitment is also predicted to be directly influence by trust. This theory posits that being able to trust a reliable partner is important as it will ensure committed relationship. According to Morgan and Hunt (1994), when individuals trust others they will be committed to maintain the relationship within the community. Within online community context, members’ feeling of commitment is positively

influenced by members' level of trust (Yen, 2009). For instance, members who trust the community will more likely attach and involve themselves in the community activity (i.e. contributing knowledge). Thus this study hypothesizes:

Hypothesis 4: Affective commitment is positively influenced by identity trust

4. Research Methodology

This study employed a positivist approach to verify the research model. Web survey was used as the data collection method. Business online communities were randomly selected following the steps suggested by Ridings et al. (2002). Search engines, (e.g., Google and Yahoo) were used to identify possible business online communities. From the search, 50 online communities were identified and invitation threads were posted on the selected online community 'lounge' section. In total 320 participants responded to the web survey from 50 selected online communities. The web survey was put online for two months, starting from early January to end of February 2011. However, only 220 responses were complete and were used for data analysis.

5. Research Findings

As for this study about 80% of the data presented skewness and kurtosis above the recommended threshold, -3 to +3. Due to the violation of normal distribution assumption, a Partial Least Square (PLS) was used. PLS seems to be the most appropriate analysis tool when dealing with non-normally distributed data (Chin, 1998). Besides that the predictive nature of this study makes this analysis tool as a better option. The research model was analyzed using Smart PLS 2.0 M3 (Ringle et al., 2004). This study's research model was estimated using a bootstrapping technique which generated 500 samples out of the 220 cases used.

5.1 Survey Responses

From the analysis majority (82.7%) of the respondents were male. About 73.2% of the respondents had more than one year (ranging from 2 to 12 years) experience with online communities. Meanwhile, 93% of the respondents had at least an undergraduate degree. The demographic analysis also showed that about 79.9% of the respondents were aged between 21 to 35 years old. Finally, 38.6% of the respondents were members of computing based communities, 21.4% were members of communication based communities, 10% were members of banking and automotive based communities and the remaining were members of financial, construction and consultation based communities.

5.2 Measurement model

The reliability of the measurement model was evaluated using the values of composite reliability (CR). The convergent validity was evaluated using Fornell and Larcker's (1981) two criteria: (1) all the indicators must be significant (at least at significant value of 0.05) and their loading should exceed 0.7 and (2) average variance extracted (AVE) value should exceed 0.50. Table 1 shows all items are highly significant ($p < 0.001$) and their loading exceed 0.7 on respective construct. Also AVE value for each construct is above 0.50, ranging from 0.569 to 0.8. Hence

both criteria were satisfied, confirming the convergent validity of measurement model. Meanwhile, discriminant validity was evaluated based on the square root of the AVE value of a construct should be greater than the correlations between the constructs (Fornell & Larcker, 1981). The criteria were fulfilled demonstrating sufficient discriminant validity of the scales. Table 2 reports the correlation matrix of key constructs and AVE square root values (bold diagonal value).

Construct	Items	Items Loading	t-Stat
IDN TRUST AVE = 0.696; CR = 0.919	TRUST1	0.828	25.064
	TRUST2	0.865	22.512
	TRUST3	0.789	16.808
	TRUST4	0.819	23.387
	TRUST5	0.865	23.828
AFF COMM AVE = 0.585; CR = 0.876	COMM1	0.756	12.8
	COMM2	0.682	7.004
	COMM3	0.79	13.299
	COMM4	0.784	11.981
	COMM5	0.807	16.973
SAT AVE = 0.569; CR = 0.841	SAT1	0.751	8.538
	SAT2	0.738	11.982
	SAT3	0.756	12.668
	SAT4	0.773	17.0
CKC AVE = 0.8; CR = 0.923	CKC1	0.877	22.444
	CKC2	0.886	25.415
	CKC3	0.92	52.728

Table 1 Psychometric property of measures

Construct	CKC	COMM	SAT	TRUST
CKC	0.894			
Commitment	0.625	0.765		
Satisfaction	0.528	0.571	0.754	
Trust	0.614	0.614	0.513	0.834

Table 2 Correlation matrix of key constructs

5.3 Structural Model

Figure 2 shows the results of the structural model. From the analysis, identity trust emerged as the strongest predictor of members' CKC intention ($\beta=0.33$, $t=4.006$ $p<0.001$), closely followed by affective commitment ($\beta=0.314$, $t=4.699$ $p<0.001$) and satisfaction ($\beta=0.179$, $t=2.42$ $p<0.01$). Further, identity trust was strongly influenced by satisfaction ($\beta=0.571$, $t=3.459$ $p<0.001$). Finally, affective commitment was significantly influenced by identity trust ($\beta=0.477$, $t=4.716$, $p<0.001$) and satisfaction ($\beta=0.24$, $t=4.326$ $p<0.001$).

Overall, the model explains 49.1% variance of the dependent variable (CKC intention). 32.6% of the variance in affective commitment is explained by identity trust and satisfaction; and 41.6% of the variance in identity trust is explained by satisfaction.

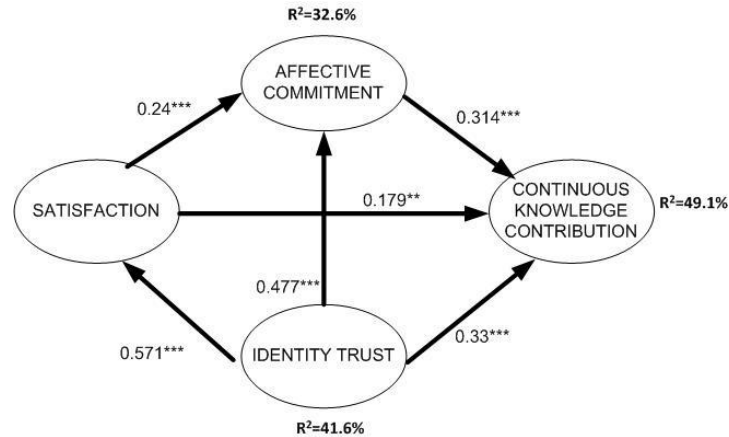


Figure 2: The result of research model (** p < 0.01; *** p < 0.001)

5.3 Mediating Analysis

In a post-hoc analysis, the mediating relationship was tested using Baron and Kenny’s (1986) mediating analysis procedures. The significance of the mediating relationship was based on Sober’s test value (Z value). If the Z value exceeded 1.96, it demonstrated significant mediating relationship (p < 0.05). Table 3 shows the result of mediating analysis conducted on the research model.

The findings of the mediating analysis showed that both affective commitment and identity trust partially mediated the relationship between satisfaction and members’ CKC intention. From the analysis, the insertion of identity trust and affective commitment reduces the coefficient value (β) of path SAT \rightarrow CKC (path c) from 0.254 to 0.179 and from 0.292 to 0.179 respectively (refer to Path c and Path c’ in Table 3). According to Baron and Kenny (1986), partial mediation occurred when the insertion of a mediation variable significantly reduce the strength of the relation between predictor and outcome (β of path c’ < β of path c).

	Path	β	Standard Error (s_a and s_b)	Z	Type of Mediation
Path a	SAT \rightarrow AC	0.571	0.1319		AC partially mediates SAT \rightarrow CKC relationship (p < 0.01)
Path b	AC \rightarrow CKC	0.33	0.0823		
Path c	SAT \rightarrow CKC	0.254			
Path c’	SAT \rightarrow AC \rightarrow CKC	0.179		2.94	
Path a	SAT \rightarrow TRUST	0.24	0.069		Trust partially mediates SAT \rightarrow CKC relationship (p < 0.01)
Path b	TRUST \rightarrow CKC	0.314	0.074		
Path c	SAT \rightarrow CKC	0.292			
Path c’	SAT \rightarrow TRUST \rightarrow CKC	0.179		2.69	

Table 3: The results of mediating analysis

6. Discussion and Implications

This study was conducted to examine the role of trust and commitment on the relationship between satisfaction and CKC intention. Based on the literature review, this study posited that both trust and commitment mediated the relationship. The significant influence of trust and commitment were examined using Smart PLS.

The results provide several key findings that were validated by the research model. First, this study substantiated the mediating role of trust and commitment in the relationship between satisfaction and CKC intention. The findings showed that identity trust and affective commitment were fundamental constructs that affected members' CKC intention. Based on the findings, trust and commitment played an important role in providing a conducive situation for members to continuously contribute their knowledge. For instance, trust can facilitate members' continuance intention through reducing perception of risk and at the same time enhance relationship through positive and trustful communication (Chang & Wong, 2010). On the other hand, affective commitment helps to keep members in continual relationship within the community by establishing the feeling of cohesiveness and belongingness with others (Kim et al., 2008). Second, this study also confirmed a direct significant influence between identity trust and CKC intention. This finding gave support to Hsu et al.'s (2007) assumption that identity trust significantly influenced knowledge sharing at later stage (e.g., continuous stage). Finally, the direct influence of satisfaction on CKC intention was also established within this research. Interestingly, the research findings indicated that satisfaction had a stronger influence on identity trust and affective commitment rather than on CKC intention directly.

Theoretically the main contribution of this paper is to extend our understanding of the mediating role of trust and commitment in a CKC context. This is an early attempt taken to include the mediating effect when examining continuous knowledge contribution intention. Also, the findings of this study are important to extend Bhattacharjee's (2001) IS continuous model, by introducing trust and commitment as mediating variables.

This study also provides some practical suggestions to business online community owners on how to encourage both identity trust and affective commitment. In order to encourage identity trust, business online community owners may want to: 1) involve employees from hosting company to participate within the community interactions so that it can build more confidence (Ridings et al., 2002); and 2) level of identification trust can be achieved by improving the quality of communication with users and minimizing any opportunistic behaviour (Li et al., 2006).

Meanwhile to encourage affective commitment, the business online community owner may want to: 1) implement interactive chat rooms that can offer members the opportunity to communicate interactively (Thatcher & George, 2004); 2) incorporate features that allow one-to-one communication with business representative (Li et al., 2006); and 3) design strategies to foster emotional linkage between community owner and members (Barners & Cumby, 2002).

It is important to highlight that the results of this study must be accepted by paying attention to several limitations. The limitations are: 1) although the online communities were selected randomly, majority of the respondents were from technology related business online

communities. This might have influenced the result as most of the respondents might share the same common interest and share the same goal of contributing knowledge to the community; and 2) this questionnaire is intended only to those who have experience contributing knowledge to the community. Respondents with non-contributing experience but actively following the discussions threads might answer the questionnaire differently. Therefore, it would be interesting to investigate why this type of members continuously use business online communities in future work.

References

- Ardichvili, A., Page, V., & Wentling, T. (2003). Motivation and barriers to participation in virtual knowledge sharing communities of practice. *Journal of Knowledge Management*, 7(1), 64-77.
- Barners, J. G., & Cumby, J. A. (2002). Establishing customer relationships on the Internet requires more than technology. *Australasian Marketing Journal*, 10(1), 36-46.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351-370.
- Bhattacharjee, A., & Barfar, A. (2011). Information technology continuance research: Current state and future directions. *Asia Pacific Journal of Information Systems*, 21(2), 1-18.
- Caceres, R. C., & Paparoidamis, N. G. (2007). Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European Journal of Marketing*, 41(7/8), 836-867.
- Chang, H. H., & Wong, K. H. (2010). Adoption of e-procurement and participation of e-marketplace on firm performance: Trust as moderator. *Information & Management*, 47, 262-270.
- Chen, I. Y. L. (2007). The factors influencing member's continuance intentions in professional virtual communities - a longitudinal study. *Journal of Information Science*, 1-17. doi:10.1177/0165551506075323
- Cheung, C. M. K., & Lee, M. K. O. (2007a). Understanding user intention to continue sharing knowledge in virtual communities Symposium conducted at the meeting of the European Conference on Information Systems (ECIS) Retrieved from <http://aisel.aisnet.org/ecis2007/6>
- Cheung, C. M. K., & Lee, M. K. O. (2007b). What drives members to continue sharing knowledge in a virtual professional community? The role of knowledge self-efficacy and satisfaction. In Z. Zhang & J. Siekmann (Eds.), *Knowledge science, engineering and management: second international conference KSEM 2007 proceedings* (pp. 472-484). Germany: Springer-Verlag Berlin.
- Chin, W. W. (1998). The partial least squares approach to structural equation modelling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research*. Mahwah: Lawrence Erlbaum Associates.
- Chiu, C.-M., Hsu, M.-H., & Wang, E. T. G. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42, 1872-1888.
- Chuo, S.-W., Min, H.-T., & Lin, C.-T. (2010). Understanding continuance intention to knowledge creation using extended expectation-confirmation theory: An empirical study of Taiwan and China online communities. *Behavior & Information Technology*, 29(6), 557-570.
- Cooper, R. B., & Zmud, R. W. (1990). Information technology implementation research: A technological diffusion approach. *Management Science*, 36(2), 123-139.
- de Guinea, A. O., & Markus, M. L. (2009). Why break the habit of a lifetime? Rethinking the roles of intention, habit, and emotion in continuing information technology use. *MIS Quarterly*, 33(3), 433-444.
- Fang, Y.-H., & Chiu, C.-M. (2010). In justice we trust: Exploring knowledge sharing continuance intentions in virtual communities of practice. *Computers in Human Behavior*, 26, 235-246.

- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable and measurement error *Journal of Marketing Research*, 34(2), 161-188.
- Fuller, J., Jawecki, G., & Muhlbacher, H. (2007). Innovation creation by online basketball communities. *Journal of Business Research*, 60, 60-71.
- Ha, H.-Y., Janda, S., & Muthaly, S. K. (2010). A new understanding of satisfaction model in e-repurchase situation *European Journal of Marketing*, 44(7/8), 997-1016.
- He, W., & Wei, K. K. (2009). What drives continued knowledge sharing? An investigation of knowledge contribution and -seeking beliefs. *Decision Support Systems*, 46, 826-838.
- Hsu, M.-H., Ju, T. L., Yen, C.-H., & Chang, C.-M. (2007). Knowledge sharing behaviour in virtual communities: The relationship between trust, self efficacy and outcome expectations. *International Journal Human-Computer Studies*, 65, 153-169.
- Hsu, M. H., Chiu, C. M., & Fu, T. L. (2004). Determinants of continued use of the WWW: an integration of two theoretical models. *Industrial Management & Data Systems*, 104(9), 766-755.
- Jasperson, J., Carter, P. E., & Zmud, R. W. (2005). A comprehensive conceptualization of post-adoptive behaviors associated with information technology enabled work systems. *MIS Quarterly*, 29(3), 525-557.
- Jin, X.-L., Cheung, C. M. K., Lee, M. K. O., & Chen, H.-P. (2009). How to keep members using the information in a computer-supported social network. *Computers in Human Behavior*, 25, 1172-1181.
- Jin, X.-L., Lee, M. K. O., & Cheung, C. M. K. (2010). Predicting continuance in online communities: Model development and empirical test. *Behavior & Information Technology*, 29(4), 383-394.
- Kim, D. J. (2010). An investigation of the effect of online consumer trust on expectation, satisfaction and post-expectation. *Information System E-Business Management* doi:10.1007/s10257-010-0136-2
- Kim, J., Hong, S., Min, J., & Lee, H. (2011). Antecedents of application service continuance: A synthesis of satisfaction and trust. *Expert Systems with Applications*, 38, 9530-9542.
- Kim, J. W., Choi, J., Qualls, W., & Han, K. (2008). It takes a marketplace community to raise brand commitment: The roles of online communities. *Journal of Marketing Management*, 24(3-4), 409-431.
- Koh, J., & Kim, Y.-G. (2003). Sense of virtual community: A conceptual framework and empirical validation. *International Journal of Electronic Commerce*, 8(2), 75-93.
- Lee, M. K. O., Cheung, C. M. K., Lim, K. H., & Sia, C. L. (2006). Understanding customer knowledge sharing in web-based discussion boards. *Internet Research*, 16(3), 289-303.
- Li, D., Browne, G. J., & Chau, P. Y. K. (2006). An empirical investigation of web site use using a commitment-based model. *Decision Sciences* 37(3), 427-444.
- Ma, M., & Agarwal, R. (2007). Through a glass drakly: Information technology design , identity verification and knowledge contribution in online communities. *Information systems research*, 18(1), 42-67.
- Ma, W. W. K., & Yuen, A. H. K. (2010). Understanding online knowledge sharing: An interpersonal relationship perspective. *Computers & Education*. doi:10.1016/j.compedu.2010.08.004
- Morgan, R., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Oliver, R. L. (1980). A cognitive model for the antecedents and consequences of satisfaction. *Journal of Marketing Research*, 17, 460-469.
- Ridings, C., Gefen, D., & Arinze, B. (2002). Some antecedents and effects of trust in virtual communities. *Journal of Strategic Information System*, 11, 271-295.
- Ringle, C., Wende, S., & Will, A. (2004). SmartPLS 2.0.M3 [Retrieved from <http://www.smartpls.de>
- Saeed, K. A., & Abdinnour, S. (2011). Understanding post-adoption IS usage stages: an empirical assessment of self-service information systems. *Information Systems Journal*, 1-26. doi:10.1111/j.1365-2575.2011.00389.x
- Thatcher, J. B., & George, J. F. (2004). Commitment, trust, and social involvement: An exploratory study of antecedents to web shopper loyalty. *Journal of Organizational Computing*, 14(4), 243-268.

- Wang, H. (2009). *Research on online consumer repurchasing behavior from relationship perspective*. presented at the meeting of the International Conference on Information Management, Innovation Management and Industrial Engineering,
- Wang, Y. K., & Datta, P. (2006). Understanding IS continuance: A technology commitment perspective Symposium conducted at the meeting of the ICIS 2006 Retrieved from <http://aisel.aisnet.org/icis2006/77>
- Westlund, A. H., Kallstrom, M., & Parmler, J. (2008). SEM-based customer satisfaction measurement: On multicollinearity and robust PLS estimation. *Total Quality Management & Business Excellent*, 19(7-8), 855-869.
- Yen, Y.-R. (2009). An empirical analysis of relationship commitment and trust in virtual programmer community. *International Journal of Computers*, 3(1), 171-180.