

# **Trust Development in Online Community**

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## ***Abstract***

This paper discussed the concept of online community on general level which includes three types: transaction based community, forum community and social network community. The paper re-conceptualized trust in online community from a dynamic process perspective. It argued that trust is a long term interaction process which becomes strong through calculus-based, knowledge-based and identification-based trust phases. Three general types of mechanisms have been discussed, through which five important factors (competence, reliability, benevolence, integrity and collective identity) could be controlled to develop trust on each stage. Nine expected behaviors in different type of online community along trust development process are also presented.

## ***Introduction***

Trust has been approved as one of the important factors influencing E-commerce activities (Morrison & Firmstone, 2000). The first E-commerce activity is using web based services. Organizations start to provide traditional services through Internet as websites become a new type of communication channel (Pollach, 2008). For example, customers could manage bank account information or apply for credit card online; customers could purchase merchandises through virtual store. However, it is questionable that whether customers would like to use these automated service system instead of face to face services. Trust is one of the factors that could help customers to make such decision. System reliability and information accuracy are critical antecedent to trust of web based services (Reid & Levy, 2008). Institutional image, reputations, and past history could improve customers' trust toward the web services provided by the institution (Kun Chang, Inwon, & McKnight, 2007).

The second E-commerce activity is marketing. Internet and web based services enlarge the information pool so that people could always have alternative choices. The question is how to draw customers' attention on a particular product and to make purchase decisions (Bandyopadhyay, Wolfe, & Ranjan, 2009). Trust has been approved empirically to link with selling profits on e-market (Everard & Galletta, 2005; Lim, Sia, Lee, & Benbasat, 2006). Website design factors such as navigation design, visual design, and information design have been empirically proved as antecedents to trust on e-market (Cyr, 2008). Empirical studies also indicate that cognition factors, such as word of mouth effect, perceived security and privacy protection, third-party seal, and referral, contribute to build trust in e-vendors (Awad & Ragowsky, 2008; Kim, 2008).

Therefore, from customer's perspective, e-commerce activity is a decision making process. They make decisions on whether to use a web based service (Pollach, 2008) or whether to purchase products based on information online (Bandyopadhyay et al., 2009). Trust is one of the important factors that could help customers to make such decisions. The sources of trust during decision making process may come from institution (Kun Chang et al., 2007) and website designing factors (Cyr, 2008). As customers become committed to a website, they form an online community to share information. Thus, another source of trust is from peer members in the same online community. For example, customers would like to make purchasing decision based on other customers' online comments (Gefen & Straub, 2004; Ivan, 2009). Trust theories also indicate that trust is an interpersonal relationship which is built on interactions among people (Rempel & Holmes, 1985). Trust generated from other members in the same online community may play heavier role than that from institutions and design factors during decision making process. Therefore, the first goal of this study is investigate more online community factors that may enhance trust during decision making process. In order to understand trust in online community comprehensively, this study consider online community as a general term, which include:

- Transaction based online community (e.g. Amazon.com)
- Forum online community
- Social network online community (e.g. Facebook.com, LinkedIn.com).

Source of trust from other members may vary according to the type of online community.

The second goal of this study is to re-conceptualize trust in the context of online communities. Current studies about trust in e-commerce environment have conceptualized trust as choice behavior based on weighing perceived risks and benefits (Gefen & Straub, 2004). However, current studies considered trust as a single state or one time choice behavior without thinking about **where trust is originally developed from, how to enforce trust, and how to maintain trust in e-commerce environment** (Dayal, Landesberg, & Zeisser, 1999; Ba, 2001; Clases, Bachmann, & Wehner, 2003; Gefen & Straub, 2004). Thus, the second goal of this study is to answer above questions by re-conceptualizing trust as a process instead of single state or one time choice behavior.

The paper is organized as following. A literature review about trust as a process is presented in second part. In the third part, 6 propositions are discussed. There are two propositions on each stage. On each trust stage, the first proposition is about how to further develop trust in online community. Recommended mechanisms are presented in different type of online communities, as shown in lower level in Fig 1. Second proposition is about what the consequence behaviors are on each trust stage, as shown in upper level in Fig 1. Finally implications and conclusions are discussed.

## *Literature Review*

Social psychology literatures suggest that interpersonal trust develops historically as it takes time to establish the knowledge and experience necessary to trust another person. At the beginning of trust development process, people posses limited information about their partner, in that they could only evaluate trust using behavioral evidence. As more information has been collected during late phase of trust development, people will use other attributes as indicators of

trustworthiness. Therefore, the discussion of trust as a process will provide a full understanding of the implication of trust in online community.

There are several trust theorist have formulated development of interpersonal trust. For example, Rempel et al. (1985) propose a model outlining the development of trust. They argued that interpersonal trust develops as interpersonal relationships mature and is associated with progression through three stages: establish predictability, establish dependability and establish faith. These three steps lead to security and confidence in relationship. Rempel's model is a generic model which covers all the complexities of trust (Rempel & Holmes, 1985).

Lewicki and Bunker (1996) has extended Rempel's model to better describe each trust state during the development process. They argued that trust development is a progress through 3 continuous stages, from calculus-based trust, knowledge-based trust, to identification-based trust (Lewicki & Bunker, 1996).

Calculus-based trust is developed at the early stage of a relationship. Lewicki and Bunker defined calculus trust as "on going, market-oriented economic calculation whose value is derived by determining the outcomes resulting from creating and sustaining the relationship relative to the costs of maintaining or severing it." When people do what they promise to do, calculus trust is built because of consistency in behaviors.

Knowledge-based trust develops as relationship going on. It establishes predictability and dependability towards partner's behavior. Lewicki and Bunker defined knowledge based trust as knowledge of the trustee which allows trustor to understand and predict behavior of trustee. This level of trust is the information derived out of a relationship over time.

Identification-based trust is based on identification with another person's desires and intentions (Adams, Bryant, & Webb, 2001) . Lewicki and Bunker argued that as relationship develop, increasing information about trustee lead trustor to identification with trustee. The risk and uncertainty inherent in relationship will reduce once trustor would like to think and behavior as trustee.

Relationship could stop on any one of the trust stages. According to Lewicki and Bunker, when relationship first occurs, it's based on calculus trust. They may not move on if the relationship does not require more than transactions. Heavily bounded and regulated interdependences or any violations have occurred will stop trust from developing to knowledge based stage (Lewicki and Bunker, 1996). Trust development may stop on knowledge based stage if people do not invest enough time and effort on relationship. Only when people desire more emotional connections with other members, they will move on to identification-based trust stage.

Later study has further clarified trust development process. Calculus based trust "links willingness to trust to the belief that there is a credible threat of punishment for failure to cooperate" (Wang, 2002). Knowledge based trust is when trading partners' dispositions are well known and their behaviors could be predicted (Wang, 2002). Identification based trust happens if trustor has "taken on the needs and desires of" trustee as his personal goals and acted in the ways to consider joint gains(Wang, 2002).

This study adopts Lewicki and Bunker (1996)'s model as the cornerstone of theoretical framework. Online network can fit into this framework. At the early stage of a relationship in online community, people barely know each other without any prior shared experience. At this point, trust is calculus-based and is predicted on the calculation of costs and benefits of engaging

in trust behavior. Whether group members could move on to knowledge-based trust depends on whether a higher predictability and dependability is required by the situation (Rempel, Ross, & Holmes, 2001). Few relationships could move on to knowledge-based trust, while even fewer relationships will move to Identification-based trust stage where requires high level of interdependence and faith.

## ***Theoretical Development***

### **Stage 1: Calculus-based Trust**

Calculus-based trust is developed at the early stage of a relationship. It is not based on positive intentions toward others, but on the assessment of the perceived cost and reward of engaging in interaction with other. Lewicki and Bunker (1996) indicates that calculus based trust is built through consistent good behavior. Therefore, in online community, a system that could record and assess trustee's previous behavior will help to create calculus-based trust.

Researchers found that calculus-based trust is most often related to the workplace because people tend to operate on a reward/punishment system (Lewicki & Wiethoff, 2000). Such reward/punishment system also exists in online communities. Online communities always have their own reward and punishment mechanism in different format. For example, if the member helps other members to solve problem, he/she may gain some virtual rewards points or gain higher ranking title. Online community system maintains an evaluation system based on the record of members historical activities and comments from others. This evaluation mechanism provides relative objective information to members in that they could decide whether to trust partner with who shared no experience.

The core of the evaluation mechanism is competence and reliability of members. Social psychologists found that competence is a key factor in determining the degree to which trust will be conferred on another person (Schoorman, Mayer, & Davis, 2007). When people are judged to be competent and reliable, the information they provide to others is judged to be more trustworthy and more influential. However, the meaning of competence and reliability in online communities are determined by type of online community.

If the online community is a transaction based community, such as Amazon and eBay, the competence of a seller is determined by his/her products and service. The reliability of a seller is decided by whether the products and service are exactly same as descriptions.

If the social community is forum online community which aims to share common interesting and value among members, the competence of a member would be whether the member possesses the knowledge and skills to answer questions, and evoke interesting discussions. The reliability of a member could be whether he/she could answer questions correctly in a fast respond fashion.

If the online community is social network community which aims to extend social network and to communicate information fast, such as Facebook.com, LinkedIn.com and Twitter.com, the competence of a member would be determined by profile of the member, active postings and the size of the member's social network connection. The reliability of a member would be measured by historic activities and comments from other members in the social community. Therefore, person's perception of trust partner's competence and reliability is one of the most crucial factors that will influence trust development on calculus-based stage.

For all types of online communities, they could design an evaluation mechanism to evaluate competence and reliability of each member. The evaluation mechanism will help members to start the journey of trust in online communities. As a result, the first proposition is about impact of evaluation mechanism on calculus-based trust.

*Proposition 1: An evaluation mechanism of member's competence and reliability will help develop calculus-based trust.*

Actions will follow once people make decision to trust partners on calculus trust stage. This level of trust is based on information collected from evaluation mechanism. In a transaction based online community, transaction will happen. Empirical studies linked trust to purchase decision and profits gain in the transaction based online communities (Ba, 2001; Kim, 2008; Jin, Cheng, & Yunjie, 2009). In a forum online community, a debate or discussion will be evoked. It could be opinions toward a specific products, attitude towards a social phenomena, or discussions about how to solve problem. In a social network community, calculus-based trust will result in extending social network by adding a new person to it. Therefore, the second proposition is about what are consequence activities of calculus-based trust in different online communities. .

*Proposition 2: Higher level of calculus-based trust will lead to purchase decision, evoke discussions, or result in extended social network in online communities, depending on the type of online communities.*

Members will decide whether to move the relationship to next stage by evaluating feedback of these actions. A violation will stop members from developing further relationship. For example, if members have not got the product or service as expected, have not gain accurate and valuable information from a discussion, or fail to communicate with new person, the relationship will stop on calculus-based stage.

## **Stage 2: Knowledge-based Trust**

Knowledge-based trust is developed from the feedback of trust behaviors during calculus-based trust stage. During knowledge-based trust stage, members will get more chances to observe behaviors of trust partner. Researchers argued that people become able to predict what others will do by increasing observations of their behavior (Lewicki & Wiethoff, 2000). Through increasing positive interpretations towards observed behaviors under different content, discrete behaviors are increasingly integrated into a cohesion view of a trust partner. Two factors will help portrait disposition of the trust partner (Schoorman et al., 2007).

The first factor is benevolence. It is defined as the extent to which a trustee is believed to want to do good to the trustor (Schoorman et al., 2007). Benevolence is kind of intrinsic motivation to benefit partner without considering any extrinsic benefits. High level of perceived benevolence will lead to positive interpretation of partner's behavior. These positive interpretations will formulate judgment of trust on knowledge-based stage.

The second factor is integrity. It is conceptualized as a perception that person share or at least agree on a set of principles with trust partner (Schoorman et al., 2007). For example, in an online community, if members share the same belief that privacy is important on Internet, it will contribute to judgment of trustworthiness within the community.

Empirical studies of seller and buyers relationship in transaction online communities have accepted benevolence and integrity as antecedences to trust (Gefen & Straub, 2004; Pavlou &

Dimoka, 2006). They found that benevolent characteristics of sellers, such as free shipping, negotiable transaction, fast refund and tolerance of return, are positively related to purchasing decision through increased trust. Integrity is also found to be positively related to purchase decision (Gefen & Straub, 2004). Benevolence and integrity may also influence the judgments of trustworthiness in forum and social network online communities. Though there are no empirical studies in information system research area to support the argument, the theoretical development of how benevolence and integrity influence the judgments of trustworthiness in collective settings could be extended to these two types of communities (Schoorman et al., 2007).

In order to develop trust on knowledge-based stage, online communities could design a mechanism that helps members to perceive others capability of benevolence and integrity. Therefore, the third proposition argues the importance of a mechanism which could present benevolence and integrity of each member in online community.

*Proposition 3: A mechanism depicting member's benevolence and integrity will help develop knowledge-based trust.*

Actions occur once members make decision to trust trustee on knowledge basis, according to information gathered from benevolence and integrity presentation mechanism. In a transaction based community, buyers intend to build up a long term relationship with sellers. When all the other factors are similar, buyers will make **priority purchase** from sellers whom they trust on knowledge-based. However, knowledge-based trust is not strong enough to create customer loyalties. When making the purchase decision, customers always explore alternatives opportunities.

In forum online community, members will build up a preference list about whom should refer to when encounter some problems. Therefore, members **identify expertise** by themselves through accumulating experience.

In social network community, knowledge-based trust will lead to **deeper communications** between trustor and trustee. The content will change from superficial small talks to meaningful topics, such as shared values, believes, and life experience. Therefore, the fourth proposition is about what consequent activities of knowledge-based trust in different online communities.

*Proposition 4: Higher level of knowledge-based trust will lead to priority purchase decision, identify expertise, or result in deeper communication in online communities, depending on the type of online communities.*

Small sellers on e-market may choose to stop putting effort on developing trust into next stage because that all they need is the priority consideration of their products and services. However, trust in online communities could provide more than that.

### **Stage 3: Identification-based Trust**

Identification-based trust is based on identification with another person. Social psychology researches indicate that as relationships develop, increasing information about another people's behaviors, preferences, and motives lead to identification with this person (Lewicki & Wiethoff, 2000). Therefore, Identification-based trust requires parties to take amount of time to develop their common interests, values, perceptions, motives and goals. Identification-based trust will reduce risk and uncertainty inherent in a relationship dramatically (Adams et al., 2001). Members will think like the other, feel like the other and behavior like the other (Lewicki &

Bunker, 1996). However, identification-based trust is very hard to achieve. One strategy to build identification-based trust is through increasing the parties' calculus-based trust and knowledge-based trust. This strategy is part of trust development process and requires amount of time and effort to develop.

Another strategy is to develop a collective identity which could facilitate establishing identification-based trust by creating community or group identity(Adams et al., 2001). Social psychologists argued that identifying with another person, and categorizing this person as members of one's own group may influence how much trust is placed in this person (Kramer, Brewer, & Manna, 1996). The mechanism that helps members to increase collective identity could be deployed in online communities to further develop trust.

*Proposition 5: A mechanism that could help members to increase collective identity will help develop Identification-based trust.*

The consequent behaviors of identification based trust are various depending on the type of online community. In transaction based online community, once identification-based trust established, buyers will have faith on sellers (Adams et al., 2001). The belief that the seller is a guaranty of product quality, fast shipping, and best customer service helps customers to make purchase decision without considering alternatives. Therefore, identification-based trust toward the seller is actually transferred into **customer loyalties** towards the seller.

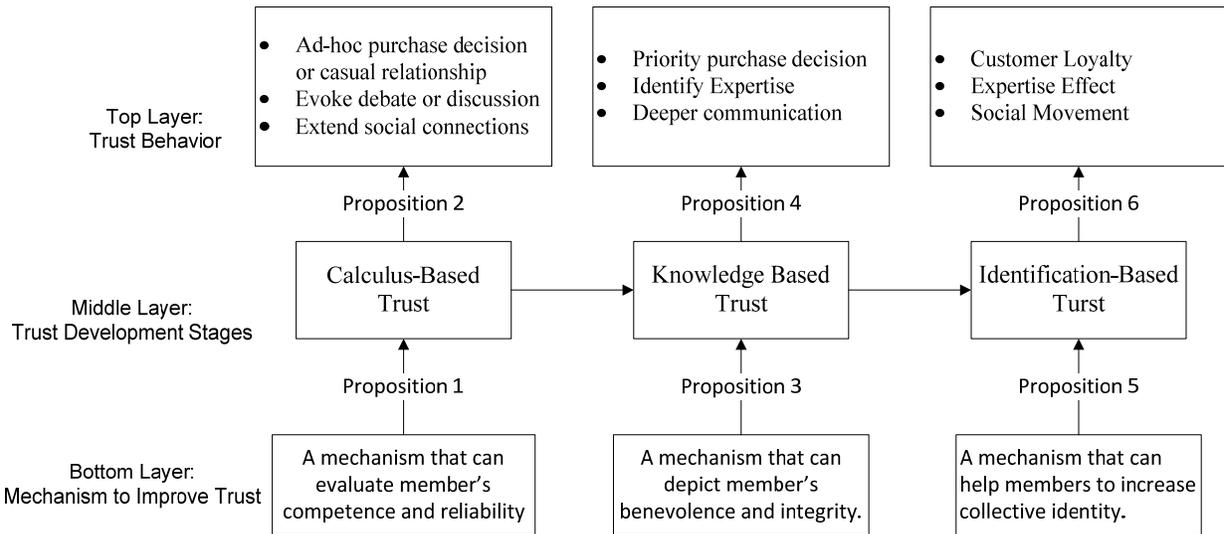
In forum online community, the consequence of identification based trust is **expertise effect**. Members start to identify themselves in the same group with experts who have been selected during knowledge based stage. Members will do what expert do spontaneously due to collective identity (Lewicki & Bunker, 1996). For example, if expertise support certain product or service, all the group members will agree on this because they feel like the other, think like the other, and behavior like the other. Therefore, organizations could take advantages of expertise effect to promote their products and service by controlling experts in online community.

In social network community, the consequence of identification based trust is **social movements**. A unique feature of social network is **expansibility**. Each member in social network community has a map depicting their social connections. It means that people could extent their social connections easily by adding strangers from friends' networks. Therefore, if the social network community could design a mechanism to extend individual's social connections by identifying similar people through their friends' network, it would lead to extraordinary phenomena. It is hard to image that how million of people could be solid united fast with shared values and believes, however, it is what happened in 2008 presidential election with the help of online social network. Therefore, the consequence of identification-based trust in social network communities is the most powerful behavior which is far more powerful than expertise effect in forum community. It will result in **social movements** eventually. Therefore, the final proposition is about the consequent activities of identification- based trust in different type of online communities.

*Proposition 6: Higher level of identification- based trust will lead to customer loyalties, expertise effect, or result in social movements, depending on the type of online communities.*

The research framework as shown in Fig 1 is drawn based on above propositions. The middle layer in Fig 1 is derived from Lewicki and Bunker (1996)'s development model of trust which

explains three steps of trust development. The major arguments in current study are what factors influence trust development and how to control these factors through mechanism on each stage (bottom layer in Fig1), and what kind of behavior will be derived from trust development on each stage (Top layer in Fig 1). The consequence trust behaviors are various depending on the type of online communities.



**Fig 1: Research Model**

### *Implications*

This study has several theoretical and practical implications. Firstly, it re-conceptualizes trust from a dynamic process perspective instead conceptualizing it as a static state. It argues that factors will influence on trust development differently according to which stage it is on. To understand development of trust in online communities will help researchers to answer questions like where trust is originally developed from, how to enforce trust, and how to maintain trust in e-commerce environment.

Secondly, this study considered online community in term of transaction based community, online forums, and social network community separately. It is because that all these communities require social interaction between members on a regular basis. This integration view of online communities will generalized findings of trust studies across different types of online communities.

However, it is hard to classify an online community into single type of community strictly in practice due to the convergence of features. Most of online communities will integrated at least two features in a prior order. For example, Amazon is a transaction community in the first place, and then also provides discussion service to customers toward a particular product. Facebook.com becomes a dream platform to new product promotion because of its discussion and word of mouth capability (Awad & Ragowsky, 2008), but fundamentally, it is a social network community. Therefore, understanding trust framework proposed in this study will help

online community designers to use factors on the bottom layers (Fig 1) to design mechanism that could help to build trust in multiple purposes communities.

This study also helps individual sellers and organizations advertisers to understand that how much social influence effort they should exert on developing trust in online community. It is determined by what kind of activities they expect. If they expect ad-hoc purchase decision or casual customer relationship, they could stop by developing calculus-based trust. If they expect priority purchase decision or plan to take advantages of expertise effect, they should exert more effort on achieving knowledge-based trust. If a massive social movement was expected, individual or organization could achieve this through developing identification-based trust.

### ***Conclusion & Further Study***

This paper discussed how to develop trust in online communities, and what behaviors could be derived along trust development process. The research proposed 5 factors that will influence trust development process on each stage. Perceived competence and reliability could help to create initial calculus based trust, perceived benevolence and integrity could move calculus based trust to knowledge based trust, and perceived collective identity could create identification based trust.

There are 9 types of behaviors could be expected along trust development process, which are varied across different type of online communities. In a transaction based community, customers' purchasing decisions have evolved along with the development of trust from ad-hoc style, prior style, to customer loyalty. In a forum community, members could find an expert through consistent discussions and debates. As trust developed into identification based level, members' behavior will be influenced by experts they identify on knowledge based stage. In a social network community, calculus based trust will encourage users to expand their social connections; knowledge based trust will encourage users to have further communication and deeper understanding of each other; once users identify themselves with certain social groups, they will be easily instigated and get into some social movements.

This paper has extended the generalizability of trust by discussing 3 types of online communities integrally. The re-conceptualization of trust from a dynamic process perspective would call attentions from researchers to reconsider factors that influence trust on each development stage separately.

The study could also be extended by considering more factors that influence trust development process. For example, institutional regulations, social norms and culture are all factors could contribute to calculus-based trust (Kun Chang et al., 2007). More design factors could be included, such as security design, navigation design and ease of use design (Cyr, 2008). These design factors will facilitate trust transformation from one stage to another.

It is hard to implement experimental design because there are too many variables have to be controlled. Case studies on each type of online communities are acceptable in order to provide a comparison among different communities. The major difficulty is to develop constructs to measure trust one each development stage. The direct approach to measure trust is through measurement of affective response using self-reports (Wang, 2002). Instrument developed by McAllister (1995) could be used with self-reports to measure trust because this instrument identifies levels of trust (McAllister, 1995).

## Reference List

- Adams, B. D., Bryant, D. J., & Webb, R. D. G. (2001). Trust in teams literature review. In D. O. C. H. I. Defence and Civil Inst of Environmental Medicine, Guelph ONT (CAN) (Ed.).
- Awad, N. F., & Ragowsky, A. (2008). Establishing Trust in Electronic Commerce Through Online Word of Mouth: An Examination Across Genders. *Journal of Management Information Systems*, 24(4), 101-121.
- Ba, S. (2001). Establishing online trust through a community responsibility system *Decision Support Systems*, 31(3), 323-336.
- Bandyopadhyay, S., Wolfe, J., & Ranjan, K. (2009). A CRITICAL REVIEW OF ONLINE AFFILIATE MODELS. *Journal of the Academy of Business & Economics*, 9(4), 141-148.
- Clases, C., Bachmann, R., & Wehner, T. (2003). Studying trust in virtual organisations. *International Studies of Management & Organisations*, 7-27.
- Cyr, D. (2008). Modeling Web Site Design Across Cultures: Relationships to Trust, Satisfaction, and E-Loyalty. *Journal of Management Information Systems*, 24(4), 47-72.
- Dayal, S., Landesberg, H., & Zeisser, M. (1999). HOW TO BUILD TRUST ONLINE. *Marketing Management*, 8(3), 64-69.
- Everard, A., & Galletta, D. F. (2005). How Presentation Flaws Affect Perceived Site Quality, Trust, and Intention to Purchase from an Online Store. *Journal of Management Information Systems*, 22(3), 55-95.
- Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega*, 32(6), 407-424.
- Ivan, W. (2009). Factors affecting the online travel buying decision: a review. *International Journal of Contemporary Hospitality Management*, 21(6/7), 752-765.
- Jin, C., Cheng, Z., & Yunjie, X. (2009). The Role of Mutual Trust in Building Members' Loyalty to a C2C Platform Provider. *International Journal of Electronic Commerce*, 14(1), 147-171.
- Kim, D. J. (2008). Self-Perception-Based Versus Transference-Based Trust Determinants in Computer-Mediated Transactions: A Cross-Cultural Comparison Study. *Journal of Management Information Systems*, 24(4), 13-45.
- Kramer, R., Brewer, M., & Manna, B. (1996). Collective trust and collective action: The decision to trust as a social decision. In R. Kramer, & T. Tyler (Eds.), *Trust in organizations: Frontiers of theory and research*. Thousand Oaks, CA, US: Sage Publications, Inc. , 357-389.
- Kun Chang, L., Inwon, K., & McKnight, D. H. (2007). Transfer From Offline Trust to Key Online Perceptions: An Empirical Study. *IEEE Transactions on Engineering Management*, 54(4), 729-741.

- Lewicki, R., & Bunker, B. (1996). Developing and maintaining trust in work relationships. In R. Kramer, & T. Tyler (Eds.), *Trust in organizations: Frontiers of theory and research*. Thousand Oaks, CA, US: Sage Publications, Inc., 114-139.
- Lewicki, R. J., & Wiethoff, C. (2000). Trust, Trust Development, and Trust Repair. In M. Deutsch, & P. T. Coleman (Eds.), *The handbook of conflict resolution: Theory and practice* San Francisco, CA: Jossey-Bass, 86-107.
- Lim, K. H., Sia, C. L., Lee, M. K. O., & Benbasat, I. (2006). Do I Trust You Online, and If So, Will I Buy? An Empirical Study of Two Trust-Building Strategies. *Journal of Management Information Systems*, 23(2), 233-266.
- McAllister, D. J. (1995). Affects and cognition based trust as foundations for interpersonal cooperation in organizations *Academy of Management Journal*, 38, 24-59.
- Morrison, D. E., & Firmstone, J. (2000). The social function of trust and implications for e-commerce. *International Journal of Advertising*, 19(5), 599-623.
- Pavlou, P. A., & Dimoka, A. (2006). The Nature and Role of Feedback Text Comments in Online Marketplaces: Implications for Trust Building, Price Premiums, and Seller Differentiation. *Information Systems Research*, 17(4), 392-414.
- Pollach, I. (2008). Media Richness in Online Consumer Interactions: An Exploratory Study of Consumer-Opinion Web Sites. *Information Resources Management Journal*, 21(4), 49-65.
- Reid, M., & Levy, Y. (2008). Integrating Trust and Computer Self-Efficacy with TAM: An Empirical Assessment of Customers' Acceptance of Banking Information Systems (BIS) in Jamaica. *Journal of Internet Banking & Commerce*, 13(3), 1-18.
- Rempel, J. K., & Holmes, J. G. (1985). Trust in close relationship. *Journal of Personality & Social Psychology*, 49(1), 95-112.
- Rempel, J. K., Ross, M., & Holmes, J. G. (2001). Trust and Communicated Attributions in Close Relationships. *Journal of Personality & Social Psychology*, 81(1), 57-64.
- Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). AN INTEGRATIVE MODEL OF ORGANIZATIONAL TRUST: PAST, PRESENT, AND FUTURE. *Academy of Management Review*, 32(2), 344-354.
- Wang, R. (2002). The value of trust in knowledge sharing. In E. Coakes (Ed.), *Knowledge Management: Current issues and challenges*.