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Winter 12-13-2015

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### Recommended Citation

Mohammed, Zareef; Tejay, Gurvirender; and Winkfield, Marcus, "Understanding the Role of Equity in Leveraging Privacy Concerns of Consumers in Ecommerce" (2015). *WISP 2015 Proceedings*. 11.  
<http://aisel.aisnet.org/wisp2015/11>

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# **Understanding the Role of Equity in Leveraging Privacy Concerns of Consumers in Ecommerce**

*Research in Progress*

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## **Abstract**

Our research aim is to investigate the reasoning behind individuals' use of ecommerce despite claiming concerns for their information privacy. We argue that consumers undergo a calculation of equal benefits in conducting business with online firms, where they agree to firms utilizing their personal information as long as they retain control over its usage. The equity theory is used as the theoretical basis of our study. We expect that our paper would provide better understanding of the conditions in which individuals disclose or withhold personal information.

**Keywords:** information privacy, equity theory, privacy paradox, ecommerce, privacy concerns

## **Introduction**

There has been incremental growth in the adoption of ecommerce as a means for conducting business transactions with a reported 4.2% increase in ecommerce sales in 2015 (US Census Bureau News, 2015). Yet, the number of ecommerce sales represents only 7.2% of all retail sales (US Census Bureau News, 2015). Studies have indicated that the advancement of ecommerce is hindered by individuals' concerns for their information privacy (Dinev and Hart 2006; Li et al. 2011; Madden et al. 2007; Smith et al. 2011). However, researchers have found

that a privacy paradox exists whereby individuals' concerns for the privacy of their personal information are contradictory to their behavior in that they continue to disclose their personal information (Dinev and Hart 2006; Smith et al. 2011).

Our research aims to investigate the reasoning behind individuals' use of ecommerce despite claiming concerns for information privacy. We argue that consumers undergo a calculation of equal benefits in conducting business with online firms, where individuals agree to provide personal information as long as they retain control over its usage. The level of control an individual has over their personal information is a critical factor (Malhotra et al., 2004). Therefore, if consumers are willing to transact online, yet do so on the basis of the level of control, they must rationalize their benefits from the trade. Furthermore, studies have indicated that humans seek fairness in social exchanges (Culnan and Armstrong 1999; Joshi 1989). In order for consumers to make a judgment on what entails fairness within an online transaction, they would need to undergo some estimation of what would be the benefits and losses of the organization with which they are transacting.

### **Prior Literature**

The privacy concerns inhibit the disclosure of personal information (Dinev and Hart 2006; Li et al. 2011), but other factors are also salient in an individuals' decision to disclose or withhold personal information. Dinev and Hart (2006) explained that consumers are willing to provide personal information based on a cost-benefit analysis of the conflicting salient factors present before transactions. This is consistent with the findings of Van Slyke et al. (2006) where conflicting factors of risk, trust, familiarity, and concern for information privacy had moderating effects on each other and significantly influenced the willingness to transact. An important finding was the role of trust in influencing consumers' intentions to transact online (Dinev and

Hart 2006; Van Slyke et al. 2006). Essentially, the trust a consumer has in an organization would act as an incentive to transact online (Belanger et al. 2002), and could mitigate privacy concerns (Pavlou et al. 2007). However, Norberg et al. (2007) found that trust was not significant in either the intentions of personal information disclosure or actual behavior.

An alternate explanation for privacy paradox considers consumers' behavior as not purely rational. Acquisti (2004) explained that for any transaction, rational privacy behavior is unrealistic as there is a limit to information parameters within a rational calculus an individual has. Even if an individual had all the information needed to make a rational decision, they would not be able to calculate it since cognitive processing is essentially limited (Acquisti 2004). Furthermore, psychological distortions of self-control and immediate gratification would affect such decisions (Acquisti 2004). However, research has shown that there is some rationality in consumers' privacy-related behavior. Awad and Krishnan (2006) found that consumers were willing to disclose personal information when they were asked to be profiled for personalized services, as opposed to personalized advertising, indicating the saliency of value.

Culnan and Armstrong (1999) found that individuals were willing to disclose their information when told that fair procedures were implemented in managing their personal information. In the absence of such information, those with higher privacy concerns were less willing to disclose their personal information (Culnan and Armstrong 1999). The individuals would perceive fairness if they had control of their personal information, which were exhibited through the freedom of approval or rejection of procedures as well as the ability to opt-out (Malhotra et al. 2004). The influence of procedural justice in individuals' decision to provide personal information was also supported by Son and Kim (2008), where they found that the

greater the individuals perceived fairness when asked to disclose personal information, the less likely they were to refuse or misrepresent the disclosure of their personal information.

### **Theoretical Basis**

Equity theory serves as the theoretical basis of our study. It helps in understanding the response of employees with regards to inequitable situations within the workplace (Adams 1963). Equity theory postulates that during social exchanges, individuals would assess their inputs and outputs and compare them to the other party's inputs and outputs. Individuals would therefore seek fairness, whereby there is a balance between the ratio of inputs and outputs of both themselves and the other party. If the individual perceives there is an equivalent trade of inputs and outputs with the other party, the social relationship would continue. If the individual perceives that there is an imbalance to either members of the social relationship, then the person usually annuls the social relationship or psychologically distorts their evaluation (Adams 1963).

Equity theory has been used in the IS literature. Joshi (1989) utilized this theory to develop an instrument to measure MIS users' perceptions of fairness in the allocation of system resources. Glass and Wood (1996) used equity theory to understand the factors that influenced individuals to engage in software piracy, arguing that social relationships and perceptions of equity influenced individuals to provide illegal copies of software to others. When consumers transact online with organizations, they are entering a social relationship (Pavlou et al. 2007). As such, it is reasonable to assume that consumers would seek equity in ecommerce transactions. This is especially the case with information privacy as individuals would attempt to justify leveraging their personal information for control and the organization's use.

### **Hypotheses development**

Organizations often collect personal information and data on browsing habits and shopping patterns, which may be considered personal to an individual. Such personal data allows an organization to provide personalized services, thereby building rapport with their customers (Culnan and Armstrong 1999). While individuals may perceive such an action an invasion of their privacy, the outcomes they may receive for trading their personal information could lead to a perception of fairness, which would influence them to transact online (see H1, Appendix A).

For fairness to be achieved, there needs to be an equal ratio of outcomes and inputs from both the individual and the organization (Adams 1967; Joshi 1989). For an individual, their input in the relationship would be the disclosure of personal information. While this may leave the individual vulnerable to the organizations' opportunistic behavior (Dinev and Hart 2006; Pavlou et al. 2007), a level of trust could mitigate these privacy concerns (Pavlou et al. 2007). As such, individuals input both disclosure of their personal information, as well as, trust in the organization to adequately handle and protect the privacy of their personal information during online transactions. An individual's perception of trust may lead to positively influencing their perceptions of fairness, whereas privacy concerns could negatively influence their perceptions of fairness (see H2 and H3, Appendix A). If an individual is intrinsically motivated to purchase online, there exists a perception of convenience. Convenience is an outcome for the individual if he/she were to disclose his/her personal information to the organization for online transactions. Individuals often rank convenience as more important than privacy and security concerns (Belanger et al. 2002), which would increase their perception of fairness (see H4, Appendix A).

While organizations could use the personal information of customers, surrendering control to their customers is more likely to influence the customers' perception of fairness (Culnan and Armstrong 1999). Control is often given by informing individuals how their

personal information is used, and granting individuals the existence of voice (such as approval and modification of personal information), as well as exit strategies (such as opting out) (Malhotra et al. 2004). Control is therefore an input of the organization during online transactions. However, the existence of control moderates individuals' privacy concerns (Malhotra et al., 2004), thereby increasing the perceptions of fairness as posited in H5 and H6 of Appendix A. While an organization's provision of control alleviates privacy concern and increases the perception of fairness, individuals also expect personalized advertisement and services when they are profiled (Son & Kim, 2008). Incentives such as discounts and free offers could be used by organizations, to which individuals are more willing to disclose their personal information (Germain 2005) through an increase in their perceptions of fairness (see H7 and H8, Appendix A).

Culnan and Armstrong (1999) found that individuals' were more likely to disclose their personal information if organizations observed fair information practices. Privacy policies should reflect all dimensions of fair information practices and should be as comprehensive as possible to increase individuals' trust (Milne and Boza 1999; Xu et al. 2005). Furthermore, when organizations implement privacy seals, individuals are more trusting of privacy statements (Miyazaki and Krishnamurthy 2002). As such, organizations' implementation of privacy statements and seals are considered their inputs, which increases individuals' trust and perceptions of fairness (see H9 and H10, Appendix A).

### **Conclusion**

Our study would contribute to the current stream of privacy paradox literature. While prior studies have argued that procedural fairness plays an important role in consumers' decisions to disclose personal information (Culnan and Armstrong 1999; Malhotra et al. 2004;

Son & Kim 2008), there is a gap in understanding why and how consumers form these perceptions of fairness. Gaining a better understanding on the conditions in which individuals disclose or withhold personal information should inform organizations how to build better relationships with consumers. Furthermore, organizations would need to provide consumers more control in order to utilize consumers' personal information. To test our hypotheses, we intend to use survey questionnaires to collect data.

### Appendix A

Hypotheses	
H1	A higher level of perceived fairness is related to a higher level of willingness to provide personal information for online transactions
H2	A higher level of trust is related to a higher level of perceived fairness
H3	A higher level of privacy concern is related to a lower level of perceived fairness
H4	A higher level of convenience is related to a higher level of perceived fairness
H5	A higher level of control is related to a higher level of perceived fairness
H6	Privacy concern is negatively moderated by a high level of control
H7	A higher level of rewards is related to a higher level of perceived fairness
H8	A higher level of personalization is related to a higher level of perceived fairness
H9	Privacy policy and privacy seals are positively related to higher levels of trust
H10	Privacy policy and privacy seals are positively related to higher levels of perceived fairness

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