Do context and personality matter? Trust and privacy concerns in disclosing private information online

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A B S T R A C T

Research and business practice have already established the central role of trust in business, particularly in online interactions. Many online business exchanges require the disclosure of sensitive personal information on a regular basis. Simultaneously, customers are reluctant to disclose private information online due to concerns about privacy. Thus, trust plays a critical role in such disclosures. However, a number of factors could influence the extent of customers' trust and their willingness to disclose their private information. In this study, we explore the critical roles of two sets of factors: the sensitivity of the context within which the private information is disclosed and the customer's personality. Our theory building is based on the contextualization of the theory of reasoned action (TRA-Privacy) and its synthesis with Prospect theory. Our theory argues that context sensitivity as a moderator and individuals' salient attributes in terms of personality types and privacy concern are critical factors impacting trust and the willingness to disclose personal information. Our results indicate that context moderates the parameters and path structure of the trust model and that the influence of personality on privacy concern and trust depends on the nature of the context. Applying these "who" and "where" aspects of theory building, the study opens a new avenue of context-related research that can further increase the specificity and richness of trust and privacy research. The study also provides a new perspective in trust scholarship, therein requiring the examination of three inter-related components: trustee, trustor and the context of trust.

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1. Introduction

Trust has been the fundamental pre-requisite for the progress of commerce and prosperity in human societies [45]. Gefen [48] was among the first to demonstrate the similarly critical role of trust in ecommerce. Trust is the willingness to depend on another person or institution based on the belief in the integrity, ability, and benevolence of the other party [46,90,93]. Trust is a central determinant of behavior across situations because it determines the extent to which people are willing to depend on others [90]. Trust is a social phenomenon that can downplay the social complexity involved in assessing others' motives and behaviors and thus can be valuable in social interactions [53,85]. Research on

traditional business interactions has demonstrated the significant role of trust [25,35,46,78]. Research on online purchasing activities has demonstrated the singularly critical role of trust in online business transactions [48,51,68,77,86,93,106,108].

Although the central role of trust as a major type of social capital in online activities is well established [33,45,124], inadequate research on the role of context and trustee attributes in the formation of this critical social capital has been conducted. Context and getting to know your customers are now considered among the main principles of forward-looking businesses at Google [118]. The business mantra "getting to know your customer" requires learning what motivates and concerns them. Trust is formed and modified within the business interaction context and influenced by customers' attributes. Various personality traits have emerged as salient attributes in doing business in the online social environment [64,135].

Although context and customer attributes in terms of their personalities, concerns, and experiences are of great interest in the industry literature, there has been inadequate systematic

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investigation of the role context and customer attributes play in online business interactions. This paper attempts to address this gap by answering the following question: *what are the roles of context and personality traits in the formation of trust and the willingness of individuals to disclose their private information online?* To answer this question, we develop our theory based on the contextualization of the theory of reasoned action and its synthesis with Prospect theory [75] to examine the contextual role of personality (Big Five) on privacy concern and trust. We test the resulting conceptualized model through a lab experiment that contrasts high- and low-sensitive contexts, namely, finance versus ecommerce, with health acting as a validity check. Personality types and privacy concern are used as salient customer attributes.

The contribution of this study is in introducing personality and context into trust and privacy when disclosing personal information online. In their seminal paper, Mayer et al. [90] have suggested that the propensity to trust, an aspect of personality, determines trust. Thus, a major contribution of this paper is setting Trust theory in a new perspective by demonstrating that personality is indeed a significant determinant of trust. The study adds the *who* and *where*—previously neglected aspects—to the theory of trust and privacy, thereby opening new avenues of research and demonstrating that managers must consider context and personality in addressing their customers and personalizing websites.

In what follows, we discuss the theoretical framework and model conceptualization, followed by methodology, data analysis, and discussion. Conclusions and limitations are presented last.

2. Theoretical framework

Theory development based on context specificity is an emerging area of theory building in the IS literature. The word *context* in its Latin root means knitting together or making a connection [123]. A more salient definition of context has been given by Mowday and Sutton [99, p. 198]: "context encompasses stimuli and phenomenon that surround and thus exist in the environment external to the individual." In his seminal work on what constitutes theoretical contributions, Whetten [145] has presented four components of theory building, three of which are commonly present in all theories—what (salient variables such as x and y), how (relations such as $x \rightarrow y$), and why (the logical reasons for relations). The fourth component of theory building consists of when, where and who, which constitute the context of the theory. This context component establishes the boundaries for the relationships posited through the first three components and is commonly missing from general theories. Whetten [145] has encouraged scholars to ask whether their theories remain valid over time (when), in all places (where), or for all people (who).

Context could relate to time, location, or individual attributes. For example, examining individual behaviors before and after a major traumatic event could be a contextual study wherein the context variable is time (when). A comparison of individual behaviors across occupational domains, such as professionals versus students, could be categorized as a contextual study wherein the contextual variable is demographics (who). The context variable in a study of factors impacting job performance in urban and rural settings is location (where). Context can moderate the nature and extent of relationships. People understand what is going on by understanding where and when it is occurring. To understand a phenomenon, it is important to analyze its context because meaning is derived from the context [57].

Trust research has examined various aspects of the what, how, and why. Although the *when* aspect has been studied by Zahedi and Song [148] in their dynamic analysis of trust, inadequate investigation of the *who* and *where* aspects has been conducted,

Bansal et al. [10] being an exception. Therefore, we focus on the where (context) and who (personality) aspects of online trust.

Johns [69] has argued for the inclusion of context in organizational research for a number of reasons, the most important of which is the ability to explain anomalies that otherwise would remain unexplained. Later, Johns [70] lamented the lack of adequate recognition of the importance of context in organizational scholarship and argues for the contextualization of theories in organizational studies. Whetten [145] has called for contextualized theory building to provide sharper boundaries and a deeper understanding about how a general theory could be applied in different contexts. Contextualization reduces overgeneralization, explains inconsistencies caused by context, and provides an appreciation of the interplay of person and situation, thereby making research more relevant to industry [69]. Theory contextualization could thus allow for the development of a more realistic theory of trust with a broader and more holistic view of trust relationships, making current scholarship more relevant.

Extending theory contextualization to IS, Hong et al. [62] has provided guidelines for context-specific theorizing in the IS research. Contextualization of a theory could be performed in a number of ways, including specifying context-specific antecedent variables, specifying context-specific consequent variables or using context as a moderator of path relationships. In this study, our theory contextualization includes all three—context-related antecedents (who—users' personality and experience), a context-specific outcome variable (context-specific disclosure of private information), and context sensitivity as the moderator of path relationships.

Theory contextualization in the IS literature is nascent. A recent example is the contextualization of the theory of planned behavior (TPB) [4] for studying teenage behaviors in virtual worlds [89]. The general theory in our research is the theory of reasoned action (TRA) [5,41], on which the technology adoption model (TAM) was built [28]. TAM applied a simplified version of TRA by excluding subjective norm (beliefs about the opinions of other people important to an individual). In this study, we also focus on belief, attitude, and behavior intention as the core constructs for theory contextualization. Privacy concern constitutes the salient dispositional belief, which impacts behavior intention directly and indirectly as mediated by trust attitude. The behavior intention in this study is the disclosure of context-specific private information. Furthermore, synthesizing with Prospect theory and following Devaraj et al. [31], we extend TRA to include antecedents of privacy concern as users' personality and their previous experiences of privacy invasion.

Prospect theory [75] suggests that people's behaviors in making choices subject to uncertainty depend on the utility and disutility of outcomes and are impacted by the context of such choices [139]. In this theory, it is shown that the influence of regret/negative feeling of loss is greater than the joy/positive feeling of winning [75]. Moreover, utility and preferences for outcomes depend on individuals' personal attributes, such as risk aversion; potential changes in their status; and extent of regret they may feel about loss [139]. Relying on a synthesis with Prospect theory, we show how context sensitivity acts as the moderator of the TRA paths, thus completing our theory building through the contextualization of TRA. We refer to this contextualization of TRA as TRA-Privacy.

3. Model conceptualization

The conceptual model is shown in Fig. 1. This conceptualization investigates the roles of personality and context in privacy concern and trust that lead to the intention to disclose private information online.