Interpersonal Trust Formation in Social Commerce in Spain: An Empirical Study

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Abstract

Interpersonal trust is essential to people's intention to use social commerce based on trust transfer theory. The objective of this study is to investigate the impact of trust-building antecedents upon interpersonal trust and users' intention to use social commerce. To do so the literature validates trust as a three-dimensional construct: competence, integrity, and benevolence, which fit the context of social commerce and provide a deep insight into trust. To investigate how this interpersonal trust is formed, trust-building theories were applied and variables including economic calculus, familiarity, shared value, and propensity to trust are incorporated as antecedents to trust in the research model, validated using survey data collected from 456 Spanish subjects. All the three trust dimensions have significant and positive impact upon behavioral intention and all the trust-building antecedents have significant and positive impact upon trust. Findings have implications for global marketing managers and information officers.

Keywords: social commerce, trust, trust-building

Track: Digital Marketing & Social Media

1. Introduction

Social commerce (the symbiosis of social media and e-commerce) is becoming part of our everyday lives and interpersonal trust is essential to people's intention to use it based on trust transfer theory. Liang & Turban (2011-12) define *Social Commerce* (SC) as a "stream of electronic commerce which involves using social media technologies to support online interactions and user contributions to assist in the acquisition of products and services". In this context social media platforms (Instagram, Facebook, WeChat, etc.), have attracted up to billions of active users. For instance, according to Statista.com, Facebook had 2.23 billion monthly active users as of the second quarter of 2018. Social media users connect with their friends and share ideas, likes, photos, recommendations, and even experiences, driving SC, thus creating unprecedented opportunities for social media platforms as well as for all businesses eager to reach their customers on these platforms (Singh, 2018). According to Anderson et al. (2011), SC revenue was projected to grow from $5 billion in 2011 to $30 billion in 2015. Radiant Insights, Inc. (2017) predicted SC would grow at a CAGR of 33.91% over 2017-2022.

Among the elements that drive people's intention to seek shopping recommendations and to make purchases on SC sites, "*trust*" is essential. Both trusting the SC site and the SC community can greatly influence people's intention to use such sites. In this context, the objective of this study is to focus on the interpersonal trust based on Trust Transfer theory that trust for other users of SC can be transferred to the products or sites that they vouch for and thus people are more likely to make purchases when recommendations come from those they trust. The study examines trust as dimensions of competence, benevolence, and integrity, and by so doing, it provides a better understanding of interpersonal trust in SC. Underpinned by trust-building theories on calculative-based, knowledge-based, identification-based and personality-based trust, this study incorporates four trust-building antecedents: economic calculus, familiarity, shared value, and propensity to trust. This would shed light on understanding how interpersonal trust in SC can be formed and strengthened. The implications of the findings are discussed for both researchers and practitioners.

2. Research Framework and Hypotheses

2.1 Trust dimensions and trust transfer

There have been many definitions of trust from different perspectives. There is agreement across disciplines that risk and interdependence are the conditions that must exist for trust to arise. Trust is particularly relevant in conditions of ignorance or uncertainty regarding the

unknown or unknowable actions of others. Borrowing Rotter's (1967; 651) definition and adapting it for the context of SC, trust can be defined as the "expectancy held by an individual that the word of another individual or group with respect to a product or service can be relied upon to make purchase decisions". *Trust transfer* occurs when people base their initial trust in an entity (referred to as the target) on their trust in some other entity, or on a context other than the one in which the target was encountered (Stewart, 2003). In the context of SC, users can base their trust in a SC site on their trust in other users of the site with the beliefs that other users have enough knowledge of the sites or products they recommend, they are honest, and act in others' interests. Therefore, the hypotheses H1a-H1c are stated (see Table 1).

H1a	COM→INT	Users' trust in the competence of others (COM) in social commerce is positively associated with users' intention to use social commerce (INT)
H1b	ITG→INT	Users' trust in the integrity of others (ITG) in social commerce is positively associated with users' intention to use social commerce (INT)
H1c	BEN→INT	Users' trust in the benevolence of others (BEN) in social commerce is positively associated with users' intention to use social commerce (INT)
H2a	EC→COM	Economic calculus (EC) is positively associated with users' trust in the competence (COM) of others in social commerce.
H2b	EC→ITG	Economic calculus (EC) is positively associated with users' trust in the integrity (ITG) of others in social commerce.
H2c	EC→BEN	Economic calculus (EC) is positively associated with users' trust in the benevolence (BEN) of others in social commerce.
H3a	FAM→COM	Familiarity between people (FAM) is positively associated with users' trust in the competence of others (COM) in social commerce.
H3b	FAM→ITG	Familiarity between people (FAM) is positively associated with users' trust in the integrity of others (ITG) in SC.
H3c	FAM→BEN	Familiarity between people (FAM) is positively associated with users' trust in the benevolence of others (BEN) in social commerce.
H4a	SV→COM	Shared value between people (SV) is positively associated with users' trust in the competence of others (COM) in social commerce.
H4b	SV→ITG	Shared value between people (SV) is positively associated with users' trust in the integrity of others (ITG) in social commerce.
H4c	SV→BEN	Shared value between people (SV) is positively associated with users' trust in the benevolence of others (BEN) in social commerce.
H5a	PT→COM	Propensity to trust (PT) is positively associated with users' trust in the competence of others (COM) in social commerce.
H5b	PT→ITG	Propensity to trust (PT) is positively associated with users' trust in the integrity of others (ITG) in social commerce.
H5c	PT→BEN	Propensity to trust (PT) is positively associated with users' trust in the benevolence of others (BEN) in social commerce.

Table 1. Summary of Model's Hypotheses

2.2 Trust-Building Theories

Trust can be formed from different sources (Shapiro et al., 1992): 1) *calculus (deterrence)-based trust* where individuals will do what they say because they fear the consequences of not doing so; 2) knowledge-based trust, which arises when people are familiar with each other and/or interact frequently; 3) *identification-based trust* where people not only understand but

also endorse others' desires and intentions. Shared values can help develop identification-based trust.

Calculative-based trust/economic calculus: This mechanism involves a calculative process of rationally assessing the costs and benefits of another party cheating or cooperating in the relationship (Shapiro, 1992; Gefen et al., 2003). Hsu et al. (2007) further defines economy-based trust as members' trust toward virtual communities due to decreased costs and increased benefits in time, knowledge, and advantage. Similarly, calculative-based trust (economic calculus) may be defined as SC users' trust toward other SC users due to decreased costs and increased benefits in saving time and acquiring knowledge. This formulates the following hypotheses from economic calculus trust. Therefore, we posit hypotheses H2a-H2c (see Table 1).

Knowledge-based trust/familiarity: By following the process/knowledge/familiarity-based trust, many researchers have posited that repeated interaction and familiarity have significant effect upon trust development (Slyke et al., 2006). This helps people understand what, when and why others do what they do and provide a basis for predicting others' future actions and as such, trust is built. Therefore, the hypotheses H3a-H3c are stated (see Table 1).

Identification-based trust/shared value (similarity): The greater the number of social similarities, the more people assume that common background expectations exist (Zucker, 1986), therefore, trust can be relied upon. Gefen et al. (2005) also argue that people are naturally biased in favor of those who are perceived as sharing the same values and belonging to the same sociocultural group as anchored in Social Identity theory. A shared sense of values means that people have common social behavioral beliefs, reducing social uncertainty in assessing what to expect and fostering trust. Similarly, shared values among partners significantly and positively affects the trust beliefs among them in various contexts: continuity in conventional industrial channel dyads (Anderson and Weitz, 1989), relationship marketing (Morgan and Hunt, 1994), buyer-seller relationships (Doney and Cannon, 1997), IT acceptance (Gefen and Ridings, 2003), and virtual communities (Hsu et al., 2007; Wu and Tsang, 2008). By following the same lines of characteristic/identification-based trust, we hypothesize H4a-H4c (see Table 1).

Personality-based trust/propensity to trust: This refers to the tendency to believe in others and so trust or depend on them (Gefen et al., 2005; Wu and Tsang, 2008). Developed by individuals as infants, such personality-based trust reflects faith in humanity, meaning that one believes that non-specific others are typically well-meaning and reliable based on one's beliefs

about human nature. In the context of SC, though people may have prior interaction with each other, such interaction may not establish a basis for trust in all aspects, or with regard to the product or site involved in SC. Therefore, hypotheses H5a-H5c are stated (see Table 1).

3. Research Methodology

A survey study was employed to collect data in order to test the research model. The measurement items were adopted from prior studies and reworded for our research context. The variables were measured and developed as follows: familiarity (based on Ng, 2013), shared value and propensity to trust (based on Gefen et al., 2005), economic calculus (based on Hsu et al., 2007), and trust dimensions (adopted from McKnight et al., 2002). The list of the items for measuring the constructs can be provided by the authors upon request. The survey questions are based on the SC site most frequently used by the subjects. Each item is measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). A pilot study with two SC users was conducted to ensure the face validity of measurement items, whose wording were refined after the users' feedback. Back translation was used for the instrument: the English questionnaire was translated into Spanish by two bilingual people and then translated back into English being further verified by two other experts to ensure both versions were equivalent. The questionnaire in Spanish was distributed to subjects enrolled in a public university in eastern Spain. 456 usable responses were collected after 27 invalid responses were excluded. Table 2 summarizes the profiles of the respondents.

Age				n=456	**Gender**	
18-23	407 (89.3%)	30-39	4 (0.9%)		Male	184 (40.4%)
24-29	41 (9.0%)	40-54	3 (0.7%)		Female	272 (59.6%)
		55	1 (0.2%)			

Table 2. Respondents' Profile

4. Analysis and Results

Because Structural Equation Modeling (SEM) has advantages over multiple regressions (Gefen et al., 2000) and SEM can simultaneously test the structural and measurement models (Bagozzi and Yi, 1988), SEM is used for data analysis in this study. Using SEM to test the research model includes the testing of the measurement model and the structural model: Testing the measurement model is to specify how the constructs in the research model are measured by the observable indicators along with measurement properties such as validity and reliability, and testing the structural model is to specify the strength and direction of the relationships among constructs in the research model as well as the explanatory power. Within the SEM approach, partial least squares (PLS) is chosen to validate our measure and to test the model,

especially since PLS is good at dealing with a small sample size (Chin, 1998). Factor and reliability analyses were conducted to determine whether the items demonstrated good construct validity and reliability. As indicated in Table 3, the factor loadings for all the items exceed the acceptable value of 0.50 (Hair et al., 1992).

	Mean	Std. Dev.	FL	CR	α	AVE
EC				0.80	0.67	0.50
EC1	3.74	0.91	0.70			
EC2	3.68	1.01	0.60			
EC3	3.73	0.85	0.76			
EC4	3.70	0.89	0.76			
FAM				0.89	0.83	0.66
FAM1	3.24	1.20	0.70			
FAM2	3.08	1.15	0.84			
FAM3	3.18	1.17	0.84			
FAM4	3.07	1.19	0.86			
SV				0.85	0.73	0.65
SV1	3.23	1.06	0.71			
SV2	3.34	0.97	0.83			
SV3	3.11	0.99	0.86			
PT				0.81	0.69	0.52
PT1	3.53	0.94	0.60			
PT2	3.52	0.86	0.72			
PT3	3.49	1.04	0.75			
PT4	3.47	1.04	0.81			

	Mean	Std. Dev	FL	CR	α	AVE
COM				0.80	0.62	0.57
COM1	3.34	0.92	0.66			
COM2	3.58	0.86	0.79			
COM3	3.60	0.81	0.80			
ITG				0.86	0.75	0.66
ITG1	3.48	0.90	0.76			
ITG2	3.61	0.90	0.83			
ITG3	3.61	0.89	0.85			
BEN				0.85	0.72	0.65
BEN1	3.60	0.99	0.77			
BEN2	3.50	1.04	0.82			
BEN3	3.27	1.00	0.81			
INT				0.79	0.60	0.55
INT1	3.68	0.91	0.64			
INT2	3.63	0.94	0.80			
INT3	3.43	1.01	0.78			

CR: Composite Reliability; FL: Factor Loading

Table 3. Mean, Standard Deviation, and Reliability Tests for the Constructs

The analysis also indicates that each item had a higher loading on its assigned construct than on any other constructs. Cronbach's alpha for the constructs were above the cited minimum of 0.6 (Nunnally, 1967), all the composite reliabilities exceeded the threshold value of 0.6 (Fornell, 1982), and the average variances (AVE) explained by each construct were above the recommended value of 0.5 (Fornell and Larcker, 1981). Table 3 also presents the mean and standard deviation for the constructs. Table 4 presents the measurements of discriminant validity, which indicate that the average variances extracted between the constructs (diagonal elements) are larger than the shared variance among constructs (off-diagonal elements). Therefore, our measurement model displays satisfactory convergent and discriminant validity.

	BEN	COM	PT	EC	FAM	INT	ITG	SV
BEN	0.645							
COM	0.164	0.567						
PT	0.240	0.271	0.521					
EC	0.163	0.321	0.268	0.498				
FAM	0.365	0.081	0.130	0.128	0.661			
INT	0.222	0.352	0.252	0.406	0.203	0.552		
ITG	0.472	0.275	0.286	0.245	0.252	0.259	0.664	
SV	0.138	0.100	0.102	0.061	0.147	0.091	0.141	0.646

Table 4. Discriminant Validity

Figure 1 presents the results of the structural model with the standardized path coefficients between constructs for all the subjects. The trust dimensions including competence, benevolence, and integrity, have positive and significant impact upon users' intention to use social commerce. Except for FAM→COM, the trust antecedents significantly and positively affect each trust dimension, which significantly and positively affects behavioral intention. Therefore, hypotheses H1-H4 are supported except for H3a.

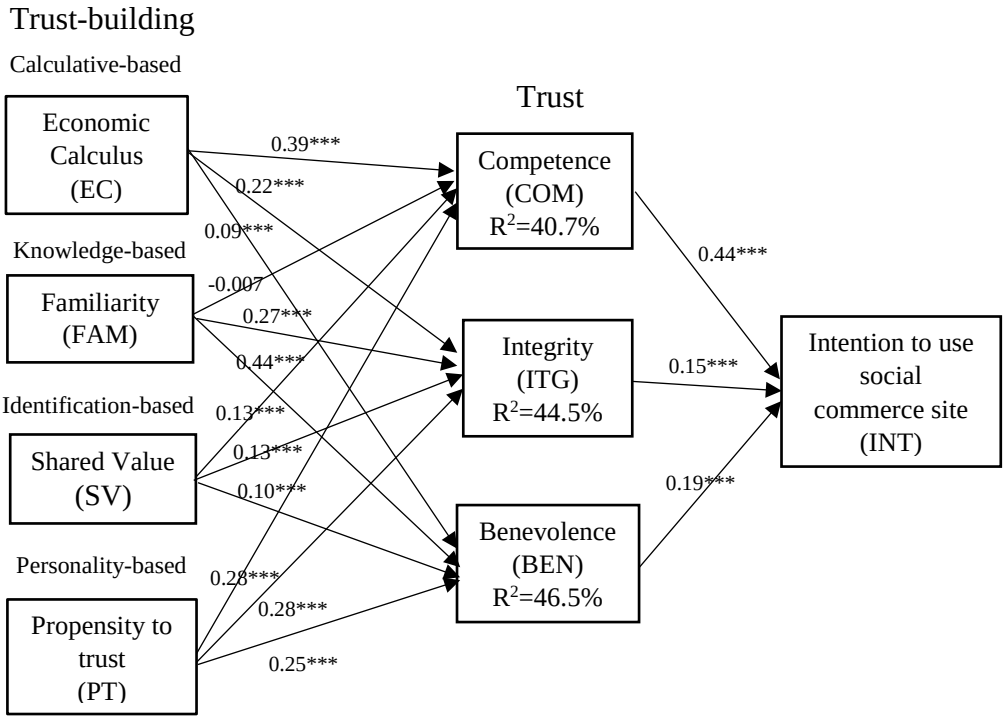

Figure 1. Results for the Sample (***p<0.001, **p<0.01)

5. Conclusions and Implications

In this study, we have investigated the impact of interpersonal trust upon users' acceptance of social commerce. Trust is examined as a multi-dimensional construct of competence, benevolence, and integrity. In addition, to shed light on how to build or strengthen interpersonal trust, we have applied the trust-building theories to incorporate economic calculus, familiarity, shared value, and propensity to trust as antecedents to trust.

Our study demonstrates the application of trust-related theories into the context of social commerce. Our research model is validated with survey data from 456 subjects in Spain. The three trust dimensions including competence, benevolence, and integrity, have significant and positive impact upon users' intention to use social commerce. We have found that all the four

trust sources contribute to the trust-building. Except for Familiarity→Competence, economic calculus, familiarity, shared value, and propensity to trust build trust in social commerce. These results provide social commerce platforms and marketers with insights on how to build or strengthen interpersonal trust. For example, our results show that economic calculus strongly affects competence. Then strategies to strengthen interpersonal trust in competence should incorporate programs and tools emphasizing the reduced cost or increased benefit of seeking shopping recommendations from others in social commerce. As another example, because familiarity strongly affects benevolence, then increasing the interaction among users can help them understand others are well-meaning and then depend on them. These findings provide clear insights for marketing and information officers on designing and managing the social commerce platforms. In addition, social commerce platforms support many different languages and span different nations and cultures, where different culture can greatly influence how people interact with and influence each other. However, very few studies have looked into the impact of culture on social commerce in different cultural settings. Future research on trust in social commerce can be conducted for multiple regions.

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