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How to Retain Your Customers: The Impact of Consumer Trust and Commitment in E-marketplaces

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Abstract: Retaining your customers is important for E-sellers to survive in the intensified competitive e-marketplace. We approach this issue from the perspective of “continuance intention”, a behavior intention that describes the willingness of customers to continue transacting with sellers. Drawing upon the trust-commitment theory, as well as institution-based trust factors, we examine two types of trustees, EC platform and individual E-sellers, in the process of maintaining customers in e-marketplaces. A model is theoretically developed to understand customers’ continuance intention to do business with specific E-sellers on an EC platform. An empirical study was conducted in three public universities to validate the model. The results suggest that affective commitment and calculative commitment jointly nurture customers’ continuance intention. In addition, five factors of institution-based trust strongly influence trust in EC platform, and then transfers to trust in individual E-sellers.

Key words: e-marketplaces, institution-based trust, EC platform, E-sellers, trust, commitment, continuance intention

1. INTRODUCTION

With the globalization of business and the advancement of Internet technology, e-marketplaces are growing at an unprecedented speed. The Internet has become a revolutionary channel for business, which results in reduced transaction costs, efficient transaction process, and lower entry barriers. These benefits attract millions of sellers to join in the e-marketplaces, leading to fierce competition. Given that e-marketplaces are increasingly fragmented and competitors are just a mouse-click away, how to retain customers has become a critical issue among E-sellers. Many sellers emphasize relationship marketing strategy as a promising tool to gain success in these marketplaces.

Relationship marketing, as defined by Morgan and Hunt, is “all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges” (P22) [1]. Actually, a relationship marketing strategy focuses on retaining customers, building a long-term relationship and a series of transactions with customers, in contrast to short-term and one-time transactional exchanges [2, 3]. There are three reasons to use relationship marketing for E-sellers. First, as customers have multiple options from which to choose in e-marketplaces and they tend to rotate, retaining customer base is significant for E-sellers to lock in customers and sustain market share. Second, acquiring a new customer costs five to ten times as much as to keep an old one [4]. Five percent increase in customer retention can improve profitability by 25% [5]. Third, the continued purchase intention of a customer provides additional revenue opportunities via cross-selling or upselling, and satisfied customers can act not only as a free, but greater efficient advertising channel to acquire new customers [6]. Therefore, the relationship marketing strategies are critical for sellers to maintain their customers. Nevertheless, retaining existing customers is a challenging task, especially in the context of electronic commerce.

According to the 25th Statistical Report on Internet Development in China [7], the total amount of online business is growing rapidly. However, due to the incidents of fraud, information leakage and other online shopper victimization, the growth rate of online shoppers is declining. It was reported that about 38 million
online shoppers had been cheated online in the first half of 2011 in China⁷. More and more people hesitate to purchase online because of a lack of trust. It is hard for customers to commit to their partners, which negatively impacts on improving customer continuance intention.

Given these unique circumstances, we theorize trust and commitment as two critical enabling factors in online relational exchanges. Different from the previous studies, which focus on examining the effects of commitment or seller trust on consumer purchase intention⁸–¹⁰, this study investigates whether commitment and two types of trustees in e-marketplaces (e.g. EC platform and individual E-sellers) influence the customer continuance intention. The empirical study is validated by the data from a survey of students accustomed to purchase on Taobao.com in three public universities in Guangzhou, China. This paper represents an important step towards a better understanding of how third-party structure produce trust, known as institution-based trust.

2. THEORETICAL FOUNDATIONS

2.1 Trust theory

Broadly speaking, there are two approaches in the studies of trust: as a set of beliefs or as a behavior intention¹¹–¹². In the first school of thought, trust is defined as a belief in the attribute of trustees that their words or promises are reliable and they will fulfill their obligations. Generally speaking, there are three dimensions of trusting beliefs: competency, benevolence and integrity¹¹–¹³. Nonetheless, others have posited trust as a behavior intention that a customer is willing to depend on a vendor. The willingness is derived from perception that the vendor will fulfill its commitment¹⁰. In this paper, we adopt the second definition.

Furthermore, it must be recognized that the application of trust to traditional marketplaces does not apply perfectly to e-marketplaces¹⁰–¹² because virtual parties online do not typically have intense, face-to-face contacts that enable trust to be built through tangible cues. In order to solve these problems, many online marketplaces, such as Taobao and ebay, have contributed to establishing institutional mechanisms to mitigate risks and have built a unique type of online trust, namely institution-based trust¹³. Institution-based trust, is the belief that needed structural conditions are present to enhance the probability of achieving successful outcomes in commerce¹⁴, ¹⁵. In e-marketplaces, where experience is not readily available, trust-based buyer-seller relations not only evolve spontaneously at the individual level, but also depend highly on the existence of stable institutions, which make the transaction environment trustworthy.

The institution-based trust is defined in two dimensions: structural assurance and situational normality¹¹. Structural assurance means one believes that essential structural mechanisms, such as escrow services, credit card guarantees and regulations, are provided to ensure his/her benefits and protect success. Both technological and legal assurances are important under the unclear and undeveloped environment of e-commerce. Situational normality refers to the belief that the environment is appropriate, normal and favorable to gain success. The perception of situational normality in an e-marketplace is based on the overall perception of general vendors’ attributes in this market. A customer who believes that the community of vendors in a marketplace is competent, benevolent and honest would perceive high situational normality. Thus, these three basic attributes apply to interpersonal relationship and to the institutional-personal relationship as well¹¹.

2.2 Trust in E-commerce platform vs. trust in E-sellers

Generally, there are two categories of service providers in online commercial interaction¹³, ¹⁶. One is the E-seller, who has business with customers directly without third-party recognition to reduce risks. The other is the EC platform, a third-party organization that uses Internet infrastructure to facilitate transactions among buyers and sellers by collecting, processing and disseminating information¹³. Shopping on the EC platform is
popular on online commerce, for it is devoted to applying guarantees, regulations, safety nets or other structures effectively to secure transaction process in e-marketplaces [16], which acts as a mediating “care taker” between E-sellers and customers. Thus, the EC platform has advantages to develop its trustworthiness and retain customers compared to single E-seller.

According to the trust transfer theory, the influence of trust on attitudes and perceptions can transfer from one domain to another [17, 18]. Therefore, trust can transfer from one trusted entity (the EC platform) to another unknown one (the specific individual E-sellers). It appears that customers form opinions about whether an EC platform can be trusted, and thus form a specific opinion about E-sellers who are transacted with on this platform. In other words, information about an EC platform serves as a proxy for the reputation of individual E-sellers. This generalized perception of the EC platform affects customers’ behavior by determining what they expect from E-sellers. The more trustworthy an EC platform is to customers, the more likely customers are to trust E-sellers on this EC platform. Some studies have found that trust in EC platform positively associated with trust in E-sellers [16, 19].

2.3 Trust-commitment theory

Commitment is an essential component of successful long-term relationships [8, 20], which enhances the efficiency of exchange relationships by establishing relational norms that include flexibility and solidarity [2, 20]. Commitment consists of three components: affective, calculative and normative [21]. The affective component refers to the emotional attachment to the organization. The calculative component refers to commitment based on the need to stay in the relationship due to high switching costs or the lack of proper alternatives [8]. The normative component refers to individuals’ feelings of obligation to remain in the relationship. Given the above definitions, it is obvious that the normative component is not relative in the B2C or C2C context [8]. Therefore, normative commitment is not included in this study.

In the relationship marketing literature, many models have been tested in support of trust-commitment theory [1, 8, 20]. It is an important theory, focusing on the long-term relational exchanges between customers and sellers. Both trust and commitment encourage customers to preserve relationship investments by cooperating with exchange partners [1]. Besides, they allow customers to transcend short-run uncertainty or risks to concentrate on long-term profits or gains [18]. Most importantly, due to these two prerequisites, customers tend to accept high-risk actions based on positive expectations that their partners will not act opportunism. Therefore, when both trust and commitment are present in relational exchanges, they promote efficiency and effectiveness to solve problems arising in e-marketplaces to make success.

Prior studies have shown that high levels of consumer trust and commitment contribute to online purchase intentions [11] and help retain customers [8, 10]. For example, according to Morgan and Hunt [1], a critical complement of trust in exchange relationship is commitment, and trust positively affects relationship commitment. They posited that participants in relational exchanges will seek only trustworthy partners, and both commitment and trust are important for long-term relationships. In other words, commitment and trust lead directly to cooperative behaviors that are conducive to relationship marketing success [1].

3. RESEARCH MODEL AND HYPOTHESIS

The research model (Figure 1) rests on the Continuance Intention model (CI model) and the institution-based factors for EC platform trust. The CI model suggests that customer continuance intention to do business with an E-seller is directly influenced by commitment, and commitment, in turn, is affected by trust. The institution-based factors propose that the build-up of consumer EC platform trust is influenced by five factors belonged to institution-based trust.
attributes to be trusted and willing to deliver on their trust. Moreover, according to the literature discussed above, three attributes of general E-sellers, including competency, benevolence and integrity, can be used to measure the degree of situational normality [11]. A customer who perceives high situational normality in general, and vendors in an EC platform are competent, benevolent and righteous, therefore, he/she would believe this platform to be trustworthy. Hence, we adopt institution-based trust as a factor of trust in EC platform through four attributes of situational normality and structural assurance of this EC platform.

H1a: Situational Normality-General (SNG) has a positive effect on Trust in EC Platform (TEP).

H1b: Situational Normality-Competency (SNC) has a positive effect on Trust in EC Platform (TEP).

H1c: Situational Normality-Benevolence (SNB) has a positive effect on Trust in EC Platform (TEP).

H1d: Situational Normality-Integrity (SNI) has a positive effect on Trust in EC Platform (TEP).

H1e: Structural Assurance (SA) has a positive effect on Trust in EC Platform (TEP).

In a consumer cognitive model of trust transfer process, trust is transferred across hypertext links based on perceived interaction and similarity of the linked organization [17]. When a consumer contacts with an online shopping website, his or her perception of the EC platform can transfer to individual E-sellers on this platform. This process of trust transfer facilitates online transaction by reducing perceived risks [13]. Moreover, from the information about an EC platform, customers can form an opinion as to whether the behavior of a seller corresponds to what they perceive to be trustworthy. They tend to create trust in specific individuals through limited information, which is quite common in e-marketplaces. According to Verhagen (2006), the sellers trust is positively associated with trust in intermediary [19]. Likewise, Hyoo and Hwihyang (2011) have suggested that trust in sellers is influenced by trust in intermediary [16]. Therefore, we posit the following hypothesis:

H2: Trust in EC Platform (TEP) has a positive effect on Trust in E-sellers (TES).

In the relationship marketing area, trust and commitment are suggested to lead cooperative behavior of relationship success. It is found that relational partners will be more committed to their relationship when they develop trust [8]. Studies have shown that trust is crucial in influencing affective commitment [1, 8]. Consistent with these studies, this research proposes that a customer who trusts in an EC platform has higher motivation to make affective attachment to sellers on this platform. Besides, after customer interacting with the individual E-sellers, the more consumer trust in these sellers, the more affective commitment they have.
H3a: Trust in EC Platform (TEP) has a positive effect on Affective Commitment (AC).
H3b: Trust in E-sellers (TES) has a positive effect on Affective Commitment (AC).

Calculative commitment measures the degree to which partners experience the need to maintain a relationship given the high switching costs and scarcity of alternatives [12]. Compared to interacting with untrusted partners, a customer who believes its partner is trustworthy will find a greater need to stay in this relationship. Nusair (2007) have indicated that calculative commitment was positively influenced by trust [8].

Due to the above discussion, we propose the following hypothesis:
H4a: Trust in EC Platform (TEP) has a positive effect on Calculative Commitment (CC).
H4b: Trust in E-sellers (TES) has a positive effect on Calculative Commitment (CC).

Commitment has been suggested as a fundamental prerequisite for the development of long-term relationship [8, 20]. Affective commitment refers to affective attachment an individual feels toward the relationship, characterized by involvement with the relationship as well as enjoyment in being part of the relationship [12]. The more affective commitment customers have to their partners, the more likely they have to do business continuously with them. Calculative commitment, which is rooted in scarcity of alternatives and switching costs, measures the degree of customers’ need to maintain a relationship [12]. It is defined as the intent to continue a relationship under the given situation. When consumers have calculative commitments with E-sellers, they tend to be bound to their relational partners. Thus, we propose the following hypothesis:
H5a: Affective Commitment (AC) has a positive effect on Continuance Intention (CI).
H5b: Calculative Commitment (CC) has a positive effect on Continuance Intention (CI).

Studies have suggested that affective commitment and calculative commitment are not orthogonal constructs and individuals may feel both psychological states during the relationship [12]. It is found that calculative commitment has a positive impact on affective commitment [8]. Similarly, Fullerton (2003) found that calculative commitment affects affective commitment [23]. Therefore, we propose the following hypothesis:
H6: Calculative Commitment (CC) has a positive effect on Affective Commitment (AC).

4. RESEARCH METHODOLOGY

To empirically test the research model and hypothesis, a cross-sectional field study was conducted on Taobao’s online platform that consists of numbers of E-sellers. Taobao is chosen because it is the most widely used website among online shoppers in China [24]. It actively invests in building customer trust by explaining its policies and mechanisms. The structure and institutional mechanisms in Taobao, including credit card guarantees, third-party payment platform and other escrow mechanisms, have obtained achievements and gained reputation. To test the research hypothesis, we used a survey method for data collections. This section describes the construct operationalization, the survey sample, and the data collection procedure.

4.1 Measurement

The research model has ten constructs, all of which were operationalized using multi-item scales. These measurement items were adapted from prior literature. The items for institution-based trust, including Situational Normality-General, Situational Normality-Competency, Situational Normality-Benevolence, Situational Normality-Integrity, and Structural Assurance were adapted from McKnight [11]. Trust in EC platform and trust in E-sellers were assessed with measures used by Mayer and Gefen [12, 25], adapted two of three to reflect Taobao.com and specific individual sellers on Taobao.com as two targets of trust. Following Allen and Mayer, both affective commitment and calculative commitment were measured with three items [21], focusing on customers’ affective and calculative commitment to sellers. We adapted two of four items used by Mathieson [26] for Continuance Intention, which is defined as customers’ continuance intention to cooperate with these
individual E-sellers. All of these items were operationalized with seven point scales.

4.2 Data collection

This empirical study was conducted in three public universities in Guangzhou. The data collection involved three steps. First, two certified translators performed the standard instrument translation and back-translation between English and Chinese [27]. Prior to the main study, a pilot study was conducted to examine construct validity and reliability by administering questionnaires to a sample of 15 students in a university. This sample was similar in characteristic to the final sample that was used for testing the structural model. The students’ feedback was used to establish face validity of measures and ensured readability, appropriateness, and logical arrangements of questions in the questionnaire.

In this study, the population was limited to undergraduate students or above. Invitation e-mails were sent to the randomly selected students across different colleges by explaining the purpose of the study and inviting their participation. Invitees belonged to this age group that formed a substantial portion of online shoppers (i.e. 18-35 years old) [24], and were likely to exhibit the behaviors of actual Internet shoppers [28]. E-mails were sent to three hundred subjects, and two hundred and eighty-seven of them accepted the invitation. Respondents were asked to click on the URL link provided in the e-mail message, which linked to the web-based survey instrument. The respondents were assured that the results would only be used in academic research and their anonymity would be assured. Table 1 displays the demographics of the responding subjects.

5. DATA ANALYSIS AND RESULTS

5.1 Measurement model

The data collected from the original group of 287 students were analyzed with Structural Equation Modeling (SEM), using AMOS 17.0. Prior to the structural model, the measurement model was evaluated in terms of reliability, unidimensionality, convergent validity, and discriminant validity. Although GFI (0.87) of the measurement model was slightly lower than commonly cited threshold, all other indexes were within accepted thresholds: $\chi^2/df=1.98$, AGFI=0.83, CFI=0.95, TLI=0.94, RMSEA=0.059, Standardized RMR=0.038 (Table 2). Table 3 shows the descriptive statistics, correlations, reliabilities, and average variance extracted (AVE).

For internal consistency, the value of Cronbach’s alpha and composite reliabilities (Table 3) were greater than 0.707 [29]. In addition, the AVE for each construct was higher than 0.50, suggesting that the observed items explain more variance than the error items [30]. Unidimensionality was also supported by AVE higher than 0.50 and composite reliabilities higher than 0.70 [31]. The constructs also exhibited discriminant validity as the average variance extracted for each construct is greater than the squared correlations between constructs [30].

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>44.9%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>55.1%</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 22 years old</td>
<td>56.1%</td>
</tr>
<tr>
<td></td>
<td>22-26 years old</td>
<td>30.7%</td>
</tr>
<tr>
<td></td>
<td>26-30 years old</td>
<td>7.3%</td>
</tr>
<tr>
<td></td>
<td>&gt;30 years old</td>
<td>5.9%</td>
</tr>
<tr>
<td>Education</td>
<td>Undergraduate student in Grade 1-2</td>
<td>13.9%</td>
</tr>
<tr>
<td></td>
<td>Undergraduate student in Grade 3-4</td>
<td>49.5%</td>
</tr>
<tr>
<td></td>
<td>Full-time graduate</td>
<td>27.2%</td>
</tr>
<tr>
<td></td>
<td>Part-time graduate</td>
<td>8.4%</td>
</tr>
<tr>
<td></td>
<td>Doctor</td>
<td>1.0%</td>
</tr>
<tr>
<td>Years of Web</td>
<td>&lt; 5 years</td>
<td>28.2%</td>
</tr>
<tr>
<td></td>
<td>5-10 years</td>
<td>53.3%</td>
</tr>
<tr>
<td></td>
<td>&gt;10 years</td>
<td>18.5%</td>
</tr>
<tr>
<td>Weekly Use of Web</td>
<td>&lt;5 hours</td>
<td>18.1%</td>
</tr>
<tr>
<td></td>
<td>5-9 hours</td>
<td>20.2%</td>
</tr>
<tr>
<td></td>
<td>&gt;9 hours</td>
<td>61.7%</td>
</tr>
</tbody>
</table>
Table 2. Fit indices

<table>
<thead>
<tr>
<th>Fit Indices</th>
<th>Measurement Model</th>
<th>Structural Model</th>
<th>Desired Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\chi^2/df)</td>
<td>1.98</td>
<td>2.17</td>
<td>&lt;3.0</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.83</td>
<td>0.82</td>
<td>&gt;0.8</td>
</tr>
<tr>
<td>GFI</td>
<td>0.87</td>
<td>0.85</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>CFI</td>
<td>0.95</td>
<td>0.94</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>TLI</td>
<td>0.94</td>
<td>0.93</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.059</td>
<td>0.064</td>
<td>0.05-0.08</td>
</tr>
<tr>
<td>Standardized RMR</td>
<td>0.038</td>
<td>0.071</td>
<td>&lt;0.08</td>
</tr>
</tbody>
</table>

Table 3. Descriptive internal consistency, convergent and discriminant validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>SNG</th>
<th>SNC</th>
<th>SNB</th>
<th>SNI</th>
<th>SA</th>
<th>TEP</th>
<th>TES</th>
<th>AC</th>
<th>CC</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNG</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNC</td>
<td>0.72</td>
<td>0.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNB</td>
<td>0.62</td>
<td>0.74</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNI</td>
<td>0.63</td>
<td>0.78</td>
<td>0.79</td>
<td>0.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>0.62</td>
<td>0.68</td>
<td>0.62</td>
<td>0.75</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEP</td>
<td>0.65</td>
<td>0.61</td>
<td>0.57</td>
<td>0.73</td>
<td>0.70</td>
<td>0.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TES</td>
<td>0.54</td>
<td>0.51</td>
<td>0.58</td>
<td>0.60</td>
<td>0.54</td>
<td>0.71</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC</td>
<td>0.46</td>
<td>0.35</td>
<td>0.40</td>
<td>0.43</td>
<td>0.41</td>
<td>0.56</td>
<td>0.61</td>
<td>0.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>0.39</td>
<td>0.24</td>
<td>0.37</td>
<td>0.67</td>
<td>0.28</td>
<td>0.43</td>
<td>0.50</td>
<td>0.79</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>CI</td>
<td>0.61</td>
<td>0.54</td>
<td>0.43</td>
<td>0.57</td>
<td>0.52</td>
<td>0.66</td>
<td>0.58</td>
<td>0.66</td>
<td>0.67</td>
<td>0.83</td>
</tr>
<tr>
<td>Mean</td>
<td>4.67</td>
<td>4.19</td>
<td>4.15</td>
<td>3.85</td>
<td>4.35</td>
<td>4.64</td>
<td>4.83</td>
<td>4.27</td>
<td>4.55</td>
<td>4.79</td>
</tr>
<tr>
<td>S.D.</td>
<td>1.180</td>
<td>1.157</td>
<td>1.380</td>
<td>1.537</td>
<td>1.197</td>
<td>1.190</td>
<td>1.113</td>
<td>1.137</td>
<td>1.035</td>
<td>1.125</td>
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<tr>
<td>Cronbach's</td>
<td>0.842</td>
<td>0.872</td>
<td>0.84</td>
<td>0.83</td>
<td>0.91</td>
<td>0.94</td>
<td>0.89</td>
<td>0.90</td>
<td>0.90</td>
<td>0.78</td>
</tr>
<tr>
<td>Composite Reliability</td>
<td>0.85</td>
<td>0.88</td>
<td>0.84</td>
<td>0.83</td>
<td>0.91</td>
<td>0.94</td>
<td>0.89</td>
<td>0.90</td>
<td>0.90</td>
<td>0.81</td>
</tr>
</tbody>
</table>

a. Number of Measurement Items
b. SNG=Situational Normality-General; SNC=Situational Normality-Competency; SNB=Situational Normality-Benevolence; SNI=Situational Normality-Integrity; SA=Structural Assurance; TEP=Trust in EC platform; TES=Trust in E-sellers; AC=Affective Commitment; CC=Calculative Commitment; CI=Continuance Intention
c. Diagonals represent the value of average variance extracted (AVE)
d. Off diagonals elements are the squared correlations among constructs.
e. For discriminant validity, diagonal elements should be larger than off-diagonal elements.
f. Items of all constructs, are on seven-point scales with the anchors 1=Strongly Disagree, 4=Neutral, 7=Strongly Agree.

5.2 Structural model

Following the establishment of the measurement model, we proceeded to examine the structural model fit. Similar to the measurement model, GFI (0.85) of the structural model was also slightly lower than commonly cited threshold. Nevertheless, all other indexes were within accepted thresholds: \(\chi^2/df=2.17\), AGFI=0.82, CFI=0.94, TLI=0.93, RMSEA=0.064, Standardized RMR=0.071 (Table 2), indicating a good fit between the structural model and the observed data. Figure 2 illustrates the resulting path coefficients and explained variance.

As can be seen in Figure 2, the model successfully explained 51.6\% of variance in Continuance Intention. Continuance Intention was predicted by Affective Commitment (\(\beta=0.44\)) and Calculative Commitment (\(\beta=0.32\)). In addition to the direct effect, Calculative Commitment also indirectly impacted on Continuance...
Intention ($\beta = 0.28$) via Affective Commitment. Meanwhile, Affective Commitment was affected by Trust in EC Platform ($\beta = 0.20$) and Trust in E-sellers ($\beta = 0.16$). These two factors jointly accounted for 71.3% of the variance in Affective Commitment. Besides that, Trust in EC Platform also indirectly influenced Affective Commitment ($\beta = 0.12$) via Trust in E-sellers. Calculative Commitment was affected by Trust in E-sellers ($\beta = 0.39$), which explained 27.2% of the variance in Calculative Commitment. Furthermore, Trust in EC Platform was influenced by three factors of Institution-based trust, Situational Normality-General ($\beta = 0.32$), Situational Normality-Integrity ($\beta = 0.55$) and Structural Assurance ($\beta = 0.26$).

On the other hand, Situational Normality-Competency and Situational Normality-Benevolence had no impact on Trust in EC Platform, thus H1b and H1c were not supported. Although Trust in EC Platform had an indirect effect on Calculative Commitment, it did not directly influence Calculative Commitment. Therefore, H4a was not supported.

6. DISCUSSIONS

Table 4 summarizes the findings. In total, ten of the thirteen hypotheses were supported. The significant relationship between SNG and TEP implied that a consumer with positive perception of general situational normality on an EC platform would believe the platform is trustworthy. Moreover, if a consumer forms an overall opinion that sellers in an EC platform have high integrity and there are sufficient assurance mechanisms provided, he/she would also increase trust in this platform. This result is consistent with previous research that integrity is the major positive determinant of consumer trust in online shopping. The implication is that the EC platform should focus on increasing the integrity of general sellers combined with strict adherence to a set of principles and structures. Trust in EC Platform, in turn, influenced trust in individual sellers. It appears that consumers form the opinion whether an EC platform can be trusted, and thus form concrete opinions about the individual sellers on this platform. In other words, information about an EC platform can serve as a proxy for the perception of individual E-sellers.

![Figure 2. Structural model](image-url)
In this research, three of four hypotheses embedded in the relationship between trust and commitment were supported. These relationships appear to be critical for understanding customer continuance intention to cooperate with E-sellers. In line with our expectations, customers’ affective commitment to individual E-sellers was influenced by their trust in the platform to which these sellers belonged and their trust in these sellers. Compared to TES, TEP had a stronger impact on AC. However, another form of commitment, Calculative Commitment was only affected by Trust in E-sellers. These results indicate that the more consumers trust the relationship with E-sellers, the more likely they will be to stay in this relationship. Our research strongly supports the view that consumers with high trust can better engage in maintaining the relationship with E-sellers.

The results of this study strongly support that Continuance Intention was determined by Affective Commitment and Calculative Commitment. Affective Commitment had a stronger positive impact on Continuance Intention than Calculative Commitment. The development of a customer’s affective commitment is reflected by perceiving high switching costs and believing this seller is the best alternative in this marketplace. Therefore, affective commitment is one of the most effective determinants for developing and maintaining relationships in e-commerce.

Contrary to our expectations, SNC and SNB did not impact TEP in this research. Similar result was found in Lee and Turban’s study [32]. One possible answer to such inconsistencies in these expected relationships may lie in the context of Internet shopping. When online shopping first emerged, E-sellers and customers had no experience doing business online. Uncertainty and risks mainly raised from the lack of experience in e-marketplaces. Hence, customers tended to use competency as a main determinant to compare different E-sellers and carefully considered the real intention of E-sellers before they decided which one to choose. However, as competition aggravate in marketplaces, the abilities of both E-sellers to satisfy customers’ needs and customers to distinguish different sellers are developing. More and more E-sellers are care about their customers. They are benevolent to help customers in order to strengthen their advantages. Most sellers are equipped with institutional safeguards to support them to handle online transactions in a more competent and professional manner [16]. However, efficient mechanisms are still lacking to guarantee e-sellers’ honesty, which leads to tricky problems arising in e-marketplaces. Therefore, integrity has the strongest effect on trust intention while the importance of competency and benevolence decreases over time.

Unexpectedly, TEP had no direct bearing on CC. This finding may be attributed to the influence of TES. In other words, the direct effect of TEP on CC had been replaced by the indirect effect via TES. Calculative commitment is the extent to which partners perceive the need to maintain a relationship. After customers have experience with and develop their trust in individual sellers, the decision to maintain the relationship with these

### Table 4. Summary of findings

<table>
<thead>
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sellers is based on their specific experience and perception other than the EC platform. Therefore, the effect of EC platform on the calculative component of commitment to E-sellers might be less salient.

7. LIMITATIONS

Although the data generally support the proposed model, we still need to mention some inherent limitations in this study. First, our sample is limited to buyers in a single e-marketplace. Other well-known e-marketplaces like Dangdang, Jingdong, are also known as EC platforms in China. Most importantly, these EC platforms work on the similar principles and use similar institutional mechanisms. Therefore, more research needs to be required when generalizing these results to other marketplaces. Second, these EC platforms like Taobao are considered as reputable and well-run e-marketplaces. However, there are some developing EC platforms without sufficient institutional mechanisms. The Objective of this study was to exclude ill-reputed e-marketplaces, and arguably such marketplaces will not last long [13]. Third, the data were collected through a single survey study and may have been subject to the threat of common method bias. Recognizing these limitations, we performed Harman’s one-factor test and showed that common method variance was not a major concern.

8. CONTRIBUTIONS

As our understanding of the relationship between trust and commitment has reached a level of maturity, few studies examine this issue from the perspective of different type of trustees on online shopping. This paper represents a contribution to closing this gap by examining the relationship between different types of trustees and different components of commitment. The two types of trustees, EC platform and E-sellers, and the trust-commitment theory are instrumentally in understanding customer continuance intention to purchase from sellers on an EC platform. In addition, we examined the effects of institution-based factors on trust in EC platform, which prove institutionalization trust can be a primary means for building effective online marketplaces. To cultivate customer continuance intention online, this paper proposes that institution strategies should be explored through visible ways, e.g., the design of Internet storefronts, in order to transfer trust effectively and generate customer commitment online.

ACKNOWLEDGEMENT

The authors are grateful for the support from a grant from the Natural Science Foundation of China (No. 70971081).

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