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How Online Customer Reviews Influence Credibility and Business Performance of Tourism Websites?

(Full Paper)

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ABSTRACT

Online customer reviews provide a rich shopping experience for potential customers and share information of products and services of tourism websites. Potential customers who have purchase intention can achieve useful information to decrease perceived risk with purchase uncertainty and help to make rational decisions. Prior research concentrates on how online customer reviews affect customer purchase intention, customer purchase behavior and website business performance, while all of the studies ignore the research perspective of website credibility. As credit is becoming a key factor to judge the operation quality of tourism websites, for filling the research gap, we firstly provide empirical evidence to explore how online customer reviews influence business performance with website credibility as an intermediary variable and additionally verify the significance of information quality as a moderator. The research findings show that the intermediary effects of credibility on online customer reviews and website business performance are significant, however, the moderate effect is not significant, which is distinguished from a large number of previous studies.

Keywords: Online customer reviews, website credibility, information quality, business performance, smart tourism.

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INTRODUCTION

In China, online comment function of websites gradually improves the effect of electronic word-of-mouth (e-WOM) on consumer purchase especially in tourism websites (ctrip, alitrip, tuniu, etc.), it leads to the influence of online customer reviews becomes important increasingly (Dellarocas, 2003; Mudambi & Schuff, 2010; Park et al., 2007; Yadav & Palou, 2014; Yin et al., 2014). Online customer review increases consumers' perception of usefulness of websites and promotes website profile (Kumar & Benbasat, 2006). As a feedback mechanism, online customer review provides an interactive channel for B2C e-commerce websites and consumers to make evaluations and influence consumer purchase decision through information transmission, it also can affect websites extensively, which makes both consumers and websites business benefit from each other (Jiang & Srinivasan, 2012; Sparks et al., 2016; Zhu et al., 2017). Compared with traditional mass media and advertising, consumers recognize e-WOM is more reliable and intuitive in reflecting quality of products and services and image of websites (Oh et al., 2016).

Duan et al (2008) found that when the number of e-WOM increased 10 percent, the hotel reservation number can increase 4.4 percent. Comparing with valance, volume of consumer reviews is more significant to movie revenues. They confirmed the positive influence of e-WOM on financial performance empirically. Nielsen Online Global Consumer Study (2009) found that consumer-generated word-of-mouth is the most credible method of advertising for about 70 percent customers. Browning et al. (2013) investigated the influence of online hotel reviews on consumers attributions of service quality and websites ability to control service delivery. They used an experimental design to examine the effects of four independent variables including framing, valance, ratings and target. The results showed that remark review related to core services have more positive influence on service quality.

Majority of previous research about online customer review tends to concentrate on the impact of e-WOM on customer sale decision and improvements of product quality, product sale and brand effect of B2C electronic commerce websites (Dimoka et al., 2012; Haubl & Trifts, 2000; Hu & Du, 2014; Rosario et al., 2016). However, little research elaborates whether online customer review affects credibility and business performance of tourism websites. To tourism websites, under the fierce competition environment with complex technology changes quickly, quality of product and service tends to homogeneity and no obvious difference in product (tickets, accommodation, catering, etc.) price, website credibility as a capability gradually plays a critical role to gain competitive advantage, "credit is equal to wealth" has become an underlying trend. Some scholars have engaged in the effect of website credit situation and online customer review on consumer purchase intention and the main influence factors about B2C websites credibility including tourism websites depending on exploring credibility (Floyd et al., 2014; Lin & Shen, 2015; Zhu & Zhang, 2010).

Thus we conclude our research question: for tourism websites, whether e-WOM has a significant impact on credibility and business performance? According to Ludwig et al (2013) and Tan et al. (2016), we have enough reasons to recognize information

quality may influence the effectiveness of e-WOM, therefore we introduce information quality as a moderator variable to examine if it provides joint impact for credibility and business performance of websites with e-WOM.

This research is organized as follows. Section 2 puts forward the theoretical hypotheses and conceptual model in this research. In Section 3, we ensure research variables and research instruments. Then, we test our conceptual model and hypotheses empirically through 158 usable sample from regions of Hangzhou, Xiamen, Beijing, Guangzhou and Xi'an in Section 4. We organize and illustrate related results in Section 5. In Section 6, we summarize theoretical implications and managerial implications. In Section 7, we come to the conclusion.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Online Customer Review

Online customer reviews play an important role for consumers in searching information and sharing past shopping experiences to make purchase decisions with wide coverage and fast transmission speed (Hoffman & Novak, 1996). Existing literatures involve in properties of electronic word-of-mouth mainly focus on review quantity, review quality, effect (i. e. positive or negative word-of-mouth) and visual cues such as words, pictures and other forms (Davis & Khazanchi, 2008). The higher the quality of online customer reviews are, the better the logical of contents are and the more comprehensive of products information provided, the greater the impact on consumers. Mudambi and Schuff (2010) pointed quality and extreme situation have influences to the usefulness of online customer reviews. They recognized review quality can increase confidence to consumers' purchase decisions, and high quality of online customer reviews always combine more commodity information to reduce the uncertainty of products commodity attributes to some extent and are considered to be more valuable. Amazon.com has posted over 10 million online customer reviews since 1995 to accept a lot of useful information for analyzing customer consuming preference and predicting customer purchasing behavior.

The same with the traditional word-of-mouth, online customer review also plays important roles in searching information, making purchase decisions, forming attitude or changing attitude, however, it shows a lot of persistence messages can be directly observed between strangers that traditional word-of-mouth can't achieve (Cheung & Lee, 2012). Online customer review can affect risk perceptions and product selections of consumers (Senecal & Nantel, 2004). Whatever in the contents of positive or negative, the quality of online customer review is the biggest impact on consumer purchase intention, which can overcome the limitations of information asymmetry from the existing reviews that can provide more specific and detailed information (Baek et al., 2015; Gensler et al., 2015). Usually, positive and supportive comments to business service and products can attract more consumers, neutral point of view is confirmed more useful, while compared with mixed reviews and neutral point of view, negative reviews are more persuasive to boycott the consumption, especially these comments are filled with anxiety and anger (Salehan & Kim, 2016; Yin et al., 2014; Zhang et al., 2010).

Credibility

In B2C electronic commerce, external information can trigger various psychological of consumers, rational consumers will make trust or distrust choice based on a variety of reasons for trading object such as businesses, services and products, which means whether or not customers will make an online purchase, with the passage of time and transaction process of propulsion, the steady accumulation of trust comes from consumers through the processing of quantitative results, will eventually lead to the occurrence of trading trust of individuals or websites (Chen & Tan, 2004; Gefen et al., 2003; Petersen et al., 2015). Website credibility represents a kind of credit relationship of three-way interaction composed by the buyer, the seller and tourism platform, which leads to the standard of each trading subject abides (all kinds of dominant or recessive subjects) by contracts namely in the e-commerce market, and the higher the standard is, the higher the credibility of tourism website is; on the other hand, the lower the standard is, the lower the credibility is, online merchants with high credibility are easily to win consumers trust. Website credibility is influenced by many factors, such as the credibility concept of traders including ethics, culture or moral and credibility willingness. Website credibility is different from online rating, it is a measurement of overall credit ability of the current website which is based on trust constituted multidimensional factors (Boštjan Šumak et al., 2016). In short, trust of a website is regarded as a kind of expectation, credit is the ability to accumulate expectation within a prescribed time period and credibility represents the current level of credit capability.

Montazemi and Qahri - Saremi (2015) collected 25265 cases from a meta-analysis, and build a structural equation model(SEM) to identify and examine factors that can affect consumers adoption of online banking. They find consumers trust in the online banking positively influences their intention of online banking application at the pre-adoption stage. As the precondition of credit creation, trust can affect consumers' choice to a certain extent according to the research above. B2C electronic commerce websites credibility consists of multidimensional identifications and can discriminate from traditional firms. Credibility evaluation is critical for websites' smooth and effective operation and risk control, which is often in the form of credit risk assessment (Feng et al., 2014; Liu & Cruz, 2012). Zhang, Tadikamalla and Shang (2016) propose a credit-risk evaluation composed by dynamic incentive factors, which is by way of a comprehensive method. Credibility should be determined by comprehensive qualitative

and quantitative indexes, which need to synthesize financial indicators, non-financial indicators, information guidance and future development trend (Hájek, 2011).

The Influence of Online Customer Reviews on Creditability and Business Performance of Tourism Websites

The consumers with shopping experience and product use experience reflect their true feelings independently through online reviews, especially the reviews with negative attitude can affect the potential consumers' perception of the sellers' credit (Sparks & Browning, 2011; You et al., 2015). Online word of mouth has significant influence for online rating (Moe & Trusov, 2011), online rating is the consumers' comprehensive evaluation to products' entire transaction process and the current level of business, it is a key influence factor to measure B2C e-commerce websites' transaction smooth and customer satisfaction, and it is an important part of website creditability. Therefore, we confirm that online customer review has positive impact on website creditability.

Kumar et al. (2013) confirmed online customer review had positive influence on sales and return on investment. Rishika et al. (2013) confirmed the effect of online customer review on customer shopping frequency and profitability. Most research about the influences of online customer review on business performance concluded mixed results and focus on the following main points, which are strong (including positive and negative) influence, negligible influence, uncertain influence and context-dependent influence (Chevalier & Mayzlin, 2006; Floyd et al., 2014; Gu et al., 2012; Sun, 2012). Business performance of B2C e-commerce websites is different from retail performance and financial performance, which is more macro and comprehensive to measure. Onishi and Manchanda (2012) used a system equations approach to explore the effect of activities of blogging and advertising on market outcomes in the industries of movie and cellular phone. Results show that both TV advertising and blogs have positive and synergistic effects on product sales and the volume of blogs, and are also predictive of the magnitude of them. At the same time, the research finds that the synergies between blogs and TV advertising have a stronger joint impact on business performance than the isolated effects of TV alone.

According to the related theory above, we propose the hypotheses as follows:

Ha1: Online customer reviews have a positive influence on creditability of B2C electronic commerce websites.

Ha2: Online customer reviews have a positive influence on business performance of B2C electronic commerce websites.

The Influence of Creditability on Business Performance of Tourism Websites

Creditability of B2C e-commerce websites reflects credit capability and risk control capability in a period with a lot of evidences prove its effect on tourism websites business performance from empirical research such as sales and price premiums. Tsai and Wu (2008) investigated a single classifier's performance as the base learner by using method of neural networks to compare with multiple classifiers and diversified multiple classifiers. Tsolas (2015) developed a two-stage DEA model to assess firm credit risk and further explores its influence on efficiency and effectiveness of operating performance. Website creditability is not only a measurement of a B2C e-commerce firm's current overall credit situation, also can compensate the limitations from the traditional enterprises compared with e-commerce enterprises, it can find out the current or potential weak links reference to rival for enterprises or industry benchmarking and take targeted measures, such as product, service and management field, etc., to improve business performance. According to the related theory above, we propose a hypothesis:

Hb: Creditability has a positive influence on business performance of B2C electronic commerce websites.

Information Quality

Information quality is a key factor that can influence various outcomes of online customer reviews such as knowledge sharing behavior, mobile device adoption, customer trust, customer satisfaction and even user loyalty, which has received a large number of attention recently (Durcikova & Gray, 2009; Kekre, Krishnan & Srinivasan, 1995; Kim & Han, 2011; Zhou, Li & Liu, 2010). According to a report by Nielsen (2012), 70 percent consumers indicated that they choose to trust online customer reviews about product. While there are several conditions reviews should satisfy, first, these information need to describe specifically, especially for the depiction of the details of products, such as whether consistent with the description of the merchant? The specific feeling for use of product (cost performance); secondly, some of these online customer reviews will express emotionally, such as enthusiasm comments of quite sure, negative comments of not support or comments of neutrality; third, the effectiveness of comments achieves a certain amount that will significantly influence customers purchase intension and purchase decision (Schindler & Bickart, 2012), thus dramatically affected the B2C e-commerce websites (platform) including airlines, resorts, restaurants, tourism and so on (Dellarocas, 2003; Mudambi & Schuff, 2010). Therefore, information quality is very important to measure the value of online customer reviews.

To illustrate, some B2C e-commerce websites may use platform loopholes in management rules to employ personnel to make false evaluations in order to increase online rating of product, which can make its online rating increase sharply in the short term to enhance its competitiveness; in addition, after the deal, if consumers don't evaluate the product or the service over a period of time, trading platform system will default to merchants high praise, above two situations may possibly cause online rating of B2C e-

commerce websites reflects the distortion in a certain extent; third, some professional judge can give malicious evaluations out of their own profit or helping businesses to gain higher online rating, in order to avoid three conditions above, improving authenticity and validity of online customer reviews and building a good information environment are challenges faced by e-commerce firms; four characteristics were emphasized by Wixom and Todd (2005), respectively are completeness, accuracy, format and currency.

Therefore, we introduce information quality as the moderator and propose hypotheses as follows:

Hc1: Online customer review augments information quality that the two jointly have a positive impact on creditability of B2C electronic commerce websites.

Hc2: Online customer review augments information quality that the two jointly have a positive impact on business performance of B2C electronic commerce websites.

According to the theory and hypotheses proposed above, a conceptual model of this study were developed, which is shown as Figure 1.

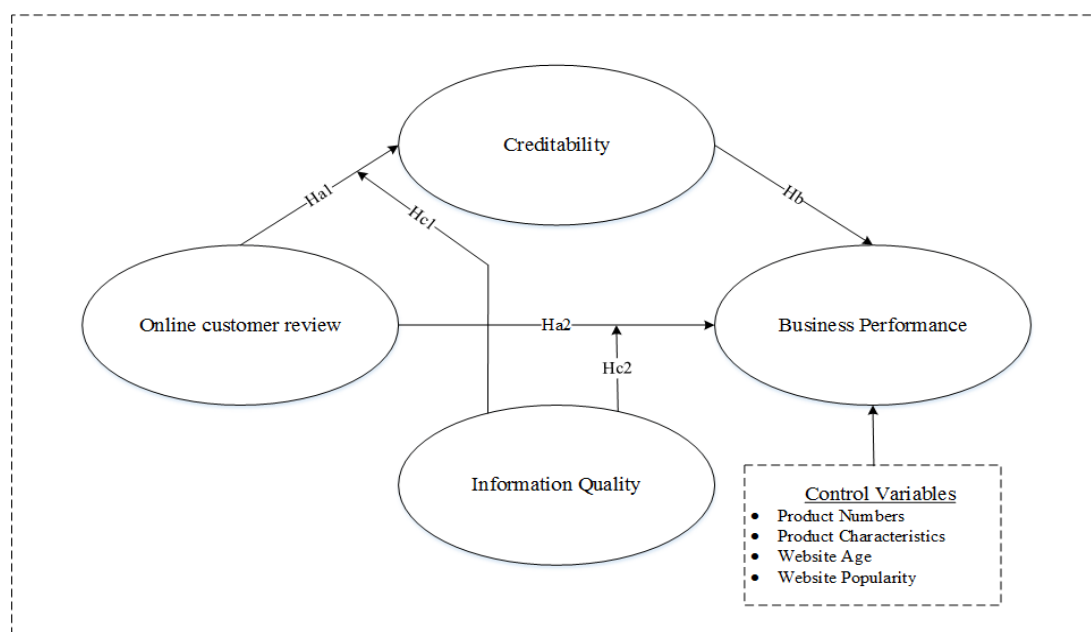


Figure 1: Conceptual model

METHODOLOGY

The scale developed in this research is composed by two parts, which are tourism website basic situation and scale subject (Hinkin, 1998). The scale subject online customer review, creditability and business performance of tourism websites. We develop the scale based on past related scales and literatures and take hierarchical multiple regression as our research instrument.

Sample and Data Collection

We selected respondents with ordering experiences in the tourism websites in the cities of Hangzhou, Xiamen, Beijing, Guangzhou and Xi'an according to tourist popularity and tourism website development status in China. We used three distribution methods: on-the-spot interview issue, online questionnaire and email. We issued 600 questionnaires from November 2017 to March 2018 and received 158 effective responses in total, the response rate is 26.3 percent. The descriptive statistics of our sample is shown as Table 1.

Table 1: Descriptive Statistics

Item	Characteristic	Frequency	%
<i>Product Characteristics</i>	travel tickets	55	34.8
	hotels	40	25.3
	tourist tickets	25	15.8
	restaurants	19	12.0
	tour guides	19	12.0
<i>Product Numbers</i>	Less than 50	10	6.3
	50~150	18	11.4

	150~300	37	23.4
	300~500	41	25.9
	more than 500	52	32.9
<i>Website Age</i>	less than 1 year	9	5.7
	1~2 years	23	14.6
	2~3 years	22	13.9
	3~5 years	21	13.3
	more than 5 years	83	52.5
<i>Website Popularity</i>	very low	7	4.4
	low	8	5.1
	ordinary	90	57.0
	high	43	27.2
	very high	10	6.3
<i>Education Background</i>	high school	11	7.0
	Bachelor's degree	58	36.7
	Master's degree	66	41.8
	Doctor's degree	7	4.4
	others	16	10.1
<i>Work Experience</i>	less than 6 months	14	8.9
	6 months ~ 1 year	29	18.4
	1year~3 years	24	15.2
	3 years~5 years	36	22.8
	more than 5 years	55	34.8
Total		158	100%

Instrument Development

For ensuring validity and reliability of the article, before developing the formal questionnaire, first we invited three experts whose research field focus on electronic commerce and five top managers who work at famous tourism websites. According to the situations of feedback we adjusted and perfect ambiguous items of the scale. Then, the revised scale was tested through effective respondents of ten local online shoppers with rich experiences on the tourism websites to assess the adequacy of scale structure and clarity of items' expression for further. At last, all the items of the scale we develop were accordance with the validity and reliability that the research required (Straub, 1989).

Operationalization of Constructs

We used multi-item reflective measures to handle all the variables in this research (on a five-point Likert scale). The latent construct that can interchange, covary and share a common theme caused the reflective indicators (Jarvis, MacKenzie & Podsakoff, 2003).

Business performance: we measure B2C electronic commerce websites business performance with four items that reflected a firm's ability to represent its effectiveness and efficiency in total, which included total/Carrera2012/AppData/Local/Youdao/Dict/Application/7.0.1.0214/resultui/dict/result.html?keyword=sales/Carrera2012/AppData/Local/Youdao/Dict/Application/7.0.1.0214/resultui/dict/result.html?keyword=volume, net earnings, service level and operation efficiency.

Moderator variables

Information quality was the only moderator variable in this research which represented the effectiveness of online information.

Control variables

There were four control variables as follows: (1) website age indicated years the website had been in B2C electronic commerce; (2) website popularity indicated the degree of the B2C electronic commerce websites are recognized by the public; (3) Product characteristics indicated the kinds of products websites managed belonged to; (4) Product numbers indicated the numbers of products websites owned.

MAIN RESULTS

Measurement Validation

We used SPSS 22.0 to examine reliability and validity about all the variables of online customer review, website creditability, business performance and information quality. We ensured an effective factor with several conditions put forward by Zhuang and

Lederer (2003): (1) characteristic root above 1; (2) total explained variance no less than 50%; (3) KMO above 0.5; (4) each variable's factor loading above 0.5; (5) Cronbach's alpha above 0.7; (6) Corrected item-total correlation above 0.35. Through the tests of reliability and validity, we can confirm variables of online customer review with four effective indicators, website credibility with four effective indicators, information quality with four effective indicators and business performance with four effective indicators, the related results were shown in Table 2. Then, we continued to examine the full scale until our research reached a good level of validity and reliability with KMO is 0.760 (>0.5), cumulative explained variance is 78.96% (>50%) and Cronbach's alpha is 0.750 (>0.7).

We used average variance extracted (AVE) and composite reliability (CR) to examine all latent constructs' reliability. Usually when AVE above 0.5 and CR above 0.7, we recognized a scale was reliable (Bagozzi & Yi, 1988). Our scale met both of the conditions that the measurement model own good results of reliability and validity in this research (AVE>0.5, CR>0.8). As shown in Table 3, related measurements of factor loading above 0.5.

We evaluated the discriminant validity through testing a cross-loading matrix. As shown in the cross-loading matrix (Table 4), we discovered that compared with the other constructs, all the measurement indicators loaded more strongly on the construct of themselves respectively. At the same time, the square root of AVE belonged to each construct was higher than the corresponding inter-construct correlation coefficient in the correlation matrix (Fornell & Larcker, 1981). These two criteria our model satisfied can represent a good discriminant validity.

Table 2: Factor Analysis Results (N=158)

Variable	Standard factor loading	KMO	Total explained variance	Corrected Item-Total Correlation	Alpha
<i>Online customer review</i>		0.723	74.448%		0.744
<i>ocr1</i>	0.807			0.491	
<i>ocr2</i>	0.713			0.616	
<i>ocr3</i>	0.785			0.482	
<i>ocr4</i>	0.673			0.572	
<i>Website Credibility</i>		0.776	90.582%		0.809
<i>wc1</i>	0.775			0.690	
<i>wc2</i>	0.936			0.625	
<i>wc3</i>	0.999			0.609	
<i>wc4</i>	0.913			0.585	
<i>Business performance</i>		0.739	87.701%		0.729
<i>bp1</i>	0.945			0.407	
<i>bp2</i>	0.779			0.523	
<i>bp3</i>	0.757			0.593	
<i>bp4</i>	0.998			0.564	
<i>Information quality</i>		0.787	82.850%		0.838
<i>iq1</i>	0.788			0.766	
<i>iq2</i>	0.788			0.763	
<i>iq3</i>	0.824			0.597	
<i>iq4</i>	0.915			0.562	

Table 3: Item Loadings, Cross Loadings, AVE and CR (N=158)

Variable	item	loadings			
		OCR	WC	BP	IQ
<i>OCR</i> CR=0.834 AVE=0.557	<i>ocr1</i>	0.583	0.138	0.060	0.005
	<i>ocr2</i>	0.515	0.377	0.096	-0.074
	<i>ocr3</i>	0.869	0.080	-0.073	0.061
	<i>ocr4</i>	0.524	0.474	0.014	0.097
<i>WC</i> CR=0.950 AVE=0.827	<i>wc1</i>	-0.133	0.812	0.337	0.074
	<i>wc2</i>	0.297	0.693	0.298	0.062
	<i>wc3</i>	0.332	0.750	-0.024	0.009
	<i>wc4</i>	0.064	0.766	-0.031	0.079
<i>BP</i>	<i>bp1</i>	0.215	-0.026	0.598	0.156

CR=0.927	bp2	-0.131	0.289	0.766	0.023
AVE=0.767	bp3	0.371	0.078	0.724	-0.028
	bp4	0.179	0.538	0.590	0.025
<i>IQ</i>	iq1	0.121	0.026	0.087	0.879
CR=0.899	iq2	0.073	0.037	0.110	0.875
AVE=0.690	iq3	0.022	0.084	-0.069	0.767
	iq4	-0.117	0.035	0.048	0.735

Note: OCR = online customer review; WC = website creditability; BP = business performance; IQ = information quality.

Table 4: Discriminant Validity and the Square Root of AVE (N=158)

Construct	Min	Max	Mean	Std Dev	OCR	C	BP	IQ
<i>OCR</i>	1	5	3.79	0.695	<u>0.747</u>			
<i>WC</i>	1	5	3.38	0.925	0.516**	<u>0.909</u>		
<i>BP</i>	1	5	3.89	0.632	0.563**	0.503**	<u>0.876</u>	
<i>IQ</i>	1	5	3.94	0.846	0.105	0.132	0.122	<u>0.830</u>

Note: OCR = online customer review; WC = creditability; BP = business performance; IQ = information quality.
* significance at the 0.05 level; ** significance at the 0.01 level; *** significance at the 0.001 level.

Common Method Bias

To minimize common method bias (CMB), we prescribed a limit on respondents of our scale (top managers, ordinary management personnel, technician and business personnel of B2C websites), who can understand our research questions more clearly based on work experience in the part of data collection. Further for avoiding CMB, we examined the scale subject by means of Harman's one factor test with a result of in factor analysis without rotating principal component the biggest factor only explained 12.83% variance, no more than 40%, which can confirm the effective sample collected in this research was no serious CMB (Jarvis, MacKenzie & Podsakoff, 2003).

Hypotheses Tests

We applied hierarchical regression analysis compared three procedures to test hypotheses in this research. For the first procedure, we tested the impact of four control variables on the conceptual model; for the second procedure, we tested the impact of moderator variables on online customer review and two hypotheses with moderator variable; for the third procedure, we tested all the hypotheses. Two points of hierarchical regression analysis needed to be noticed: (1) each construct was measured by an average score of indicators belonged to itself; (2) we need to center four control variables for reducing the potential multicollinearity. Table 5 showed the results of the relationship among four control variables, online customer review, information quality and website creditability. Table 6 provided the main results of hierarchical regression analyses of the whole research model respectively.

Table 5: Results of the First Hierarchical Regression

Variable	Website Creditability		
	Model1	Model2	Model3
Product characteristics	-0.068	-0.060	-0.061
Product numbers	-0.051	-0.063	-0.063
Website age	0.061	0.080	0.080
Website popularity	-0.025	-0.025	-0.021
Online customer review		0.685***	0.507
Information quality		0.089	-0.083
Online customer review * Information quality			0.047
R ²	0.023	0.303	0.304
F	0.916	10.919**	9.359***
ΔR^2	0.023	0.279	0.001

Note: * significance at the 0.05 level; ** significance at the 0.01 level; *** significance at the 0.001 level.

Table 6: Results of the Second Hierarchical Regression Analyses

Variable	Business Performance		
	Model1	Model2	Model3
Product characteristics	0.004	0.022	0.025
Product numbers	0.011	0.017	0.017
Website age	-0.050	-0.053	-0.052
Website popularity	-0.010	-0.006	-0.014
Online customer review		0.355***	0.662***
Website credibility		0.215***	0.219***
Information quality		0.028	0.327
Online customer review * Information quality			-0.082
R ²	0.012	0.397	0.406
F	0.481	14.095***	12.729***
Δ R ²	0.012	0.384	0.009

Note: * significance at the 0.05 level; ** significance at the 0.01 level; *** significance at the 0.001 level.

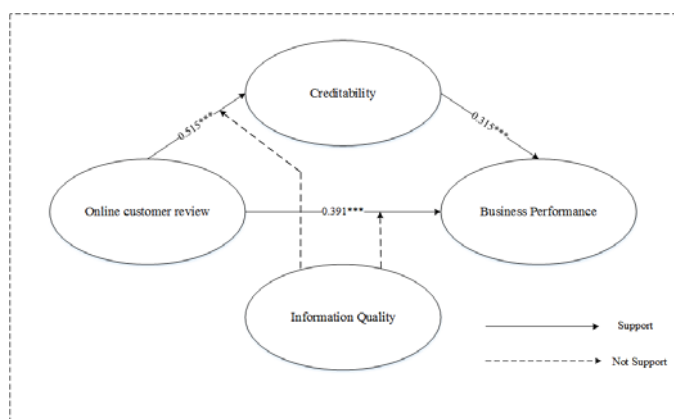
Through the coefficients of hierarchical regression analyses, we tested six models in total and the results showed that Ha1, Ha2 and Hb were supported ($p < 0.001$), while Hc1 and Hc2 were not supported ($p > 0.05$), which meant information quality as a moderator had not significant positive impact on the research model, Table 7 presented the summary results of all the hypotheses in our research. The hierarchical regression analyses also showed four control variables had not significant positive influences on the research model ($p > 0.05$).

Table 7: Summary of Hypotheses Test Results

Hypotheses	standardized coefficient	t	significance	support results
Ha1	0.515	7.518	***	+
Ha2	0.391	5.215	***	+
Hb	0.315	4.144	***	+
Hc1	0.085	0.553	>0.05	-
Hc2	0.054	-1.518	>0.05	-

Note: * significance at the 0.05 level; ** significance at the 0.01 level; *** significance at the 0.001 level.

Figure 2 showed our revised model and related coefficients.



Source: This study.

Figure 2: The Revised Model

DISCUSSIONS AND IMPLICATIONS

Theoretical Implications

Although the variables of online customer review, website credibility and business performance are not new concepts to existing literatures in e-commerce research field, while more related research has only focused on the role of EWOM in the context of online credibility, online product sales and business performance (Gu, Park & Konana, 2012; Kumar et al, 2013; Moe & Trusov, 2011). Relevant research in the context of website credibility is limited, which is possibly duo to the credibility of B2C e-

commerce websites is a multidimensional concept and be lack of unified industry standard that lead to be difficult to measure. In this research, we add the website credibility as a mediated variable to the mechanism of online customer review affects business performance as a new perspective and understanding for B2C e-commerce websites to extend institutional cognition.

Online customer review has positive influences on credibility and business performance of B2C electronic commerce websites. As shown in Table 5, the results in Model 2 determine the significant effect of online customer review on website credibility with R-square changes was 0.279 and F-test was 10.919, both of which two conditions provided effective support to Ha1 (Carte & Russell, 2003; Cohen & Cohen, 1983). Our findings suggest that better online customer review can bring higher website credibility which will guide B2C e-commerce websites to take effective measures to illustrative EWOM such as providing effective product information and stimulating consumers' communication activities (Schlosser & Shavitt, 2002; Trusov, Bucklin & Pauwels, 2009). In Table 6, we can find the results in Model 2 show that the R-square changes was 0.384 and F-test was 14.095, both of which confirmed the significant effect of online customer review on business performance and provided strong support to Ha2, this finding come to the same conclusion with the past research (Gu, Park & Konana, 2012); second, credibility has positive influence on business performance of B2C electronic commerce websites. As shown in Table 6, the results in Model 2 with the R-square changes was 0.384, F-test was 14.095 (Beta = 0.215, R² = 0.397, p < 0.001) indicated that Hb was supported, which meant B2C e-commerce websites should pay more attention to credit development and credit evaluation to achieve better business performance; third, all of four control variables have no significant influences on the research model among online customer review, credibility and business performance of B2C electronic commerce websites. Integrating the related results in Table 5 and Table 6, we can find four control variables of product characteristics, product numbers, website age and website popularity have no significant influences in our research with all the significant levels above 0.05; fourth, information quality has no significant influence as a moderator, this result may be led not only due to information coverage, information redundancy and information diversity (Aggarwal & Singh, 2013; Agrell, 1997; Anderson & De Palma, 2013), but also due to customers have clear willingness to purchase. Some purchase habit or brand loyalty cannot be interference by information quality easily, and some dissatisfaction reviews may just lead to a transitory bias (Trocchia & Lockett, 2013). At the same time, context may affect the perceived information quality of consumers (Wien & Olsen, 2012). Ziegele and Weber (2015) had proved that single customer review was more effective than aggregate reviews, which may aggregate information whatever the quality was that may not affect consumer's purchase intention significantly. In Table 5, the joint impact of information quality and online customer review on credibility was not significant (Beta=0.047, $\Delta R^2=0.001$), in Table 6, the joint impact of information quality and online customer review on business performance was not significant (Beta=-0.082, $\Delta R^2=0.009$).

Managerial Implications

The managerial implications in this research are for both online customers or latent online customers and B2C e-commerce websites. For online customers and latent online customers, our research recommends to ascension to participate in the enthusiasm of online reviews and increase the effective frequency of online reviews. Feedbacks and sharing behaviors of online experience and production experience can not only help B2C e-commerce websites to improve credibility and business performance (e.g enhancing service, rational pricing), but also can help more customers (no matter with existing purchase experience or potential customers) to provide visual information, make more reasonable purchase decisions and expectations. Customers can make online reviews as a way of supervision for B2C e-commerce websites. They should take effective measures to attract more consumers to take part in online reviews. B2C e-commerce websites should attach great importance to the online reviews, and actively improve products quality and service consciousness provided according to this basis. Second, B2C e-commerce websites should make efforts to improve credibility to promote business performance and win the competitions.

LIMITATIONS AND FUTURE RESEARCH

There were three limitations in our research that can be further extended in future. First of all, our usable sample size of 158 was limited that only combined B2C e-commerce websites from five cities of Hangzhou, Xiamen, Beijing, Guangzhou and Xi'an in China, where the tourism and e-commerce are flourishing and active. Thus, for conducting our research results can be widely applied we should expand our research sample that come from different regions in China or other countries.

Second, online customer review in this study we focus on were from B2C e-commerce websites or the platform provider, while we didn't consider other varieties channels of online customer review, such as online BBS, blog, WeChat, community, etc (Mudambi & Schuff, 2010; Aggarwal & Singh, 2013). Different online review channels can show different review content, review form and customer characteristics segmentation that may present more abundant, more substantial and more perfect information.

Third, we used four indicators to evaluate credibility of B2C e-commerce websites, which needed more evidence in the future. Credit is a multidimensional concept on the basis of accumulation of trust, and credibility represents the credit value over a period of time in our research. Also, the assessment of credibility can be explored from different perspectives.

CONCLUSIONS

This research extends understanding about online customer review. Online customer review has positive impacts on both credibility and business performance of B2C e-commerce websites. Additionally we find that website credibility has positive impact on business performance, which is an innovative conclusion for B2C e-commerce websites. We discover that information quality negatively moderated the relationship between online customer review and website credibility and the relationship between online customer review and business performance. These interesting findings address the research gap of credibility of B2C e-commerce websites and extend understanding of online customer reviews. Collectively, all the findings set unambiguous guidance for future research and managerial practice.

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(*Full reference list is available upon request from the corresponding author.)