

Impact of Brand Strength and Customer Reviews: The Case of Rural Tourism Inns in China

Siyu Peng¹ and Nicholas Su Miew Sing²

^{1,2}Guangxi University of Finance and Economics,
100 Ming Xiu West Road Nanning City, Guangxi, China

¹1575472078@qq.com; ²1931320052@qq.com

Received: 12 May 2020

Accepted: 23 June 2020

Published: 30 June 2020

ABSTRACT

As e-commerce continues to become an integral part of our lives, more and more purchase decisions are being made online. A significant contribution leading to such purchases stem from a few key factors, one of which, is customer reviews. Reviews are based on consumer experience and are increasingly necessary on e-commerce sites and platforms. Another key factor is the role brands play in influencing purchase decisions. A brand is an intangible asset of a company where brand value reflects the degree of differentiation a brand has over competitors. Most consumers judge the quality of an online product based on reviews and brands. This paper explores the question of how online product reviews and brands affect product sales on travel websites, using Ctrip.com as a case study. The study uses the user recommendation rate, the total score, the total number of reviews and brand strength to draw a relationship that suggests online reviews and brand strength impact product sales. The results demonstrate that there is a positive impact on product sales for high review scores on weak-branded inns; and the sales volume of strong-branded inns are more prominently affected by the number of comments and user recommendation rate.

Keywords: rural inn; online reviews; brand strength; purchase decision; sales volume



This is an open-access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

INTRODUCTION

As global wealth increases, so has the rate of leisure travel with the number of vacationers increasing rapidly. As market demand continues to rise, residential accommodation, as a substitute to serviced accommodation providers, is growing as the preferred choice for tourists who are travelling on a budget and spending the majority of their time away from the accommodation. Concurrently, due to the rapid development of the construction industry, large tracts of residential properties built in cities and towns are oversupplied, leading to the emergence of hollow villages in China.

On the bedrock of the nation's rapid economic development, large tracts of commercial housing built in cities and towns exceed demand, exacerbated by the migration of rural labour force to urban areas, resulting in a surplus of vacant housing facilities. With the development of the sharing economy, the residual value of such accommodation has been increased. Inns have the regional and cultural characteristics that provide an authentic experience in which travellers are looking for, which is in line with the consumption demand of the rising middle class.

According to the China Inns Brand Development Report published by Luo (2018), inns are mainly touted through Online Travel Agencies (OTAs) in distribution channels, accounting for more than thirty percent of the total number of consumers. In the media age, most OTAs have set up platforms for consumers to share product information, write reviews, set up product discussion groups, circle communities and so on. Based on this, many scholars believe that potential consumers rely more on the reputation of other consumers. Consumers' purchasing decisions are affected by online reviews because the user's point of view is more objective without the influence from the business providers. However, the relationship between brand and customer reviews is relatively vague and ambiguous in this era of social media. The impact of a brand on its products in terms of customer reviews is a result that can play a positive guiding role in the development of the tourism industry.

LITERATURE REVIEW

Research on Online Reviews and Product Sales

Online reviews, also known as online word-of-mouth, were first introduced by Hanson (2000) who defines word-of-mouth communication of computers as a medium, using the Internet as a platform through Internet sites such as e-mail, online forums and portal discussion areas to spread word-of-mouth advertising. In recent years, scholars on online reviews and product sales of the scope of research, from books, movies and other low-cost products gradually expanded to electronic products and other high-priced commodities. Wu (2014) believes that word-of-mouth can be defined as an informal exchange of information about all aspects of goods between people and the consumer's views and evaluation of brands, products or services through the Internet.

Regarding the impact of online reviews on products, scholars have studied both domestic and foreign online sites, travel sites and film sites. Pan (2011) studied the impact of online reviews on the ranking of product sales and found that higher review scores had a positive correlation on sales of non-popular products. Chen (2008) used empirical analysis and found that the expectations of individuals and knowledge self-efficacy could enhance the user's knowledge-sharing behaviour.

Li (2012) sub-divided the consumer's willingness to buy into product attitudes and purchasing possibilities. Using empirical research, the author discovered that high-quality negative reviews have a greater impact on consumers' willingness to buy than low-quality negative reviews. Under the premise that the quality of negative reviews is the same, meticulous and detail-oriented customers are more dissatisfied with the conceived product quality and so less likely to buy. Another interesting discovery is that male consumers may be more likely to be affected by negative reviews than female consumers.

Wang and Yan (2013) took the popular and unpopular brands in search listings as the research object. The authors evaluated online reviews and discovered that product prices of popular and unpopular products have a significant impact on sales volume; the length of evaluation has a positive and significant impact on product sales; and the timeliness of

evaluation has a significant impact on product sales of popular brands. However, online review star ratings have no significant effect on sales volume.

Brand and Product Sales

Brands are intangible assets of companies and represent the loyalty and trust of consumers. It is the bridge of understanding between enterprises and consumers, but also the comprehensive embodiment of the competitiveness of the market. Brand value reflects the degree of differentiation of consumer response to the brand. Brand strength is the main factor used to measure the value of the brand. A strong brand image can stay relevant in the minds of consumers to form a positive, unique association that favourably affects consumer evaluation. One method of evaluating brand equity is to assess brand strength from a consumer's perspective and observe where the brand is in the consumer's mind. Consumer loyalty, familiarity, culture, values and association of the brand are some key factors in measuring brand strength. Chernatony, MacDonald and Wallace (2011) used the control experiment to test the role of brand strength in the consumer selection process. The results show that in the case of repeated purchases by consumers, with or without relevant purchasing experience, brand strength has a significant impact on consumers' final choices, and consumers tend to choose high-profile brands and maintain their choices in subsequent purchases.

Domestic scholars have found that consumers' brand cognition has an important influence on their brand selection behaviour. Yang, Xu and Chen (2009) took the panel data of the actual consumption behaviour of domestic online malls as the research object, used the index smoothing method to analyze the dynamic loyalty of consumers to brand choice, and found that dynamic loyalty had a significant impact on the change of consumer brand choice. Based on the literature analysis, this paper holds that consumers first choose their preferred brand when making a purchase decision, and that good brands and product sales are positively correlated.

Branded Property Sales and Online Reviews

At present, domestic residential accommodation is mainly divided into two categories of urban residential and tourist destination. Urban

residential accommodation refers to community and local apartments such as Beijing's small courtyards or Shanghai's old bungalows, which can reflect the local characteristics of the city. These residential properties have a direct connection and relationship with the historical and social characteristics of a city, providing an authentic travel experience for those with such travel needs.

The tourist destination of the vacation rental property is more prominent. Yunnan Lijiang, Jiangnan ancient town has a large number of inn-type residential accommodation. Industry veterans claim that the vacation rental is very promising on the basis that the accommodation sharing market has broad prospects and residential is in a period of rapid development. In recent years, with inns growing rapidly in popularity, the number of independent inns is maintaining an average annual growth rate of more than 100%. The number of scholars studying residential accommodation has also increased significantly. Liao and Huang (2016) focused on the perspective of product quality with the United States group network hotel sales as the background, the impact of brand and online product reviews on product sales. They found that product sales were influenced by the deviation of product score distribution and showed a significant negative relationship. Nonetheless, the role of a stronger brand could counter that negative effect and reviews on sales had a positive effect.

The Research Framework

Before determining a product to purchase, potential consumers can access information from the enterprise, or browse the Internet for trusted information such as product descriptions, reviews, etc. The purpose is to reduce the uncertainty of purchase, improve their own access to accurate product quality information, as shown in the research framework of this study in Figure 1.

Accessibility-diagnostic model is about the processing consumer information, especially for the information processing behaviour that consumers take when dealing with multiple information clues. The model holds that the judgment of information clues to consumers depends on the availability and diagnosis of the clues. High accessibility information can quickly appear in the minds of consumers and is therefore more easily

used as a basis for judgment. Consumers are more inclined to use memory-based information in decision-making than on context. When the accessibility of a certain piece of information is low, the corresponding data will not be used for the consumer's purchase decision. Specific to the subject of research sat out in this paper, brand strength refers to consumer awareness and association. When consumers associate high-quality with a brand, the brand and associated products grow stronger in consumers' minds, making it easier to recall and access the experience and memory associated. Writing reviews and commenting on experiences consolidate the positive experience in the mind of consumers which makes reviews particularly influential. This presents the question of how consumer decision-making behaviour is influenced when faced with the two different sets of criteria: accessibility and diagnostic.

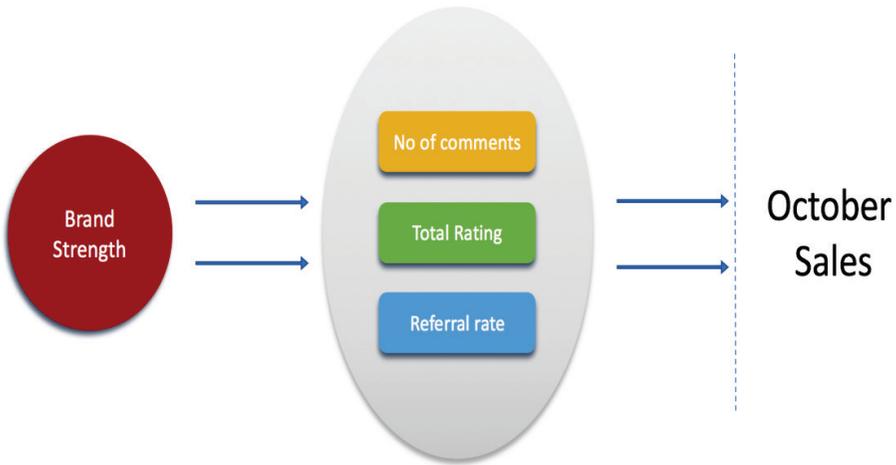


Figure 1: The Research Framework

Impact of Online Reviews on Sales

In recent years, with the increasing level of consumption, consumers' demand for accommodation is becoming more and more diversified. As a new non-standard accommodation industry, rural inn accommodation based on entrepreneurial activity within the tourism industry has developed rapidly. Consumers have established a certain

awareness of the rural inns, resulting in the rapid increase in the number of consumers buying such products. The sales volume was also rising rapidly and had witnessed a profitable period of growth.

Consumers often check product-related reviews online, before booking an inn. Online reviews are consumers' reviews of product quality experiences posted on the Internet platform with text-based reviews supplemented by star ratings. Potential consumers reduce the uncertainty of purchase by collecting as precise information as possible. Online reviews are attributed to scene information, which has a scoring bias. The scoring deviation is caused by different consumers having different criteria for judging the same product. From the point of view of consumer information processing, the scoring deviation increases the ambiguity of the comment information, reduces its ability to be analysed, and makes it difficult for the user to reduce the certainty of the purchase.

The overall score of the product is compiled by different consumer ratings, which can reduce the scoring deviation of online reviews and improve the analysis of word-of-mouth. Based on this, the study uses the brand's star rating as the standard, collects the total rating star of the inn, of which 1-2 stars represent poor rating, 3-4 stars for neutral, 4-5 stars for praise. From the point of view of information processing, the user's difficulty in processing information and the amount of product reviews is related. The higher the number, the more difficult it is to process as larger volumes of comments increase unrecognizable information.

Hence, the less accessible and judgmental information will be reduced, increasing the time and resources for consumers to process information. The high volume of comments contains a large difference in ratings thus consumers cannot accurately judge the product quality leading to an increase in the risk of purchase. The following assumptions are made:

H₁: In emerging products, a high overall rating positively affects product sales

H₂: In emerging products, a high volume of reviews has a negative effect on product sales

The Role of Brands in Regulating Sales

Due to the uncertainty surrounding the product, consumers are more likely to trust past consumers in publishing comments about product quality and user experience. At the same time, brands are seen by consumers as a credible measure of quality because of their value and content. Scholars have not yet been able to define the impact of both on the credibility of product quality. As residential accommodation is an experiential product, there are different values between different consumers, satisfaction cannot be balanced. However, it is generally believed that strong brands are more credible than weak brands because strong brands build relatively high brand value that increases the credibility of associated products. In contrast, the brand value of weak brands is low and so affects associated products consequently. In addition to relevant product advertising utilized by businesses, weak brands have no other credible information for consumers. Therefore, compared with online reviews the limited credibility of weak brands is less important.

According to the accessibility-diagnosis model, users are more likely to look for memory-based information when making consumer product selection decisions, quick consumption decisions, and paying more attention to specific information processing when there is a lack of memory clues. According to the consumer information processing theory, the brand is the user's intuitive impression of the product. High accessibility to users' ratings is more effective and influential than specific online comments, which promptly help users build a specific and deep impression of the product, thereby reducing the impact of online reviews on sales. Based on this, the following assumptions are made:

H₃: In emerging products, high ratings have a greater positive effect on brand sales than strong brand sales

H₄: In emerging products, strong brands reduce the negative impact of evaluation volume on sales volume

Consumer evaluation can be used as a standard to measure a hotel's reputation, but the consumer recommendation rate can better reflect the hotel's reputation. Due to the fact that the value standards of different consumers are different, resulting in different scoring criteria, a consumer

who gives a high rating will not necessarily recommend this inn. Inns must truly meet consumer expectations and meet their needs in order to be recommended by consumers. If consumers aren't highly satisfied with the stay, they may give them a high rating, but are unlikely to recommend the inn. Hence, face-to-face consumer recommendations can more intuitively reflect the satisfaction of the inn than online reviews as a form of word-of-mouth advertising. Therefore, the study also uses the consumer recommendation ratio as one of the measures of inn reputation, and highlights the following assumption:

H₅: In emerging products, the recommendation rate has a stronger positive impact on the sales of weak brands than on the sales of strong brands.

METHODOLOGY

In order to verify the above model and research hypothesis so that the results of the study are credible, this paper took Ctrip's online inns as the research object. First of all, Ctrip is the largest OTA website in China, with 300 million registered members. It has the second largest OTA website, Qunar network focusing on the hotel industry. The website is streamlined as a "one-stop-shop" providing the necessary services.

Ctrip's online commentary on the inn is made up of Ctrip, Elong and Qunar, providing a large amount of customer review data to ensure the demand for its services. Secondly, as a large-scale service platform, the official comments of tourists are its distinctive features. To ensure the quality and authenticity of data, the aim is to obtain scientific conclusions. The rural inn is an experiential product just like books or films, and in order to determine the quality of products, consumers will pay more attention to online reviews.

Based on the Research on the Brand Development of Inns published by Luo (2018), as of November 30, 2018, the total number of inns across the country (including Taiwan Province) reached a total of 146,264. From the perspective of the distribution of key cities, residence distribution on the province-level regions, Zhejiang and Yunnan are the objects of this study where Lijiang City (Yunnan) and Jiaying City

(Zhejiang) were selected as data sample collection sites. First, from a geographical level of observation, the past few years Yunnan and Zhejiang's inn lodging industry has led the way. Zhejiang ranks first in the country with 14214 inns while Yunnan has a total of 9947 inns. The top 5 residence distribution on the province-level regions are Zhejiang (rural inns) and Yunnan (tourist inns), Guangdong (city inns), Sichuan (Leisure inns) and Beijing (Hutong-style yards). Yunnan's Lijiang ancient town and Zhejiang's Jiashan Xitang Ancient Town are national characteristic tourist destinations where the local government has encouraged the development of the rural inn industry. Therefore, this paper selects Lijiang and Jiaying City, which have the most prosperous residents in the development of the inn industry, as the sample object. Sample data collection is collected from October 1, 2018 to October 30, 2018, as this time period covers the National Day Golden Week, which is a tourist season and the data

For data collection, the sample selected in this paper is Ctrip's Lijiang area and Jiaying area of the residential inn within the price range of 200-400 yuan, which falls in the mid-range level. The author uses the Octopus Collector to collect data, including: product name, price, total score, total product evaluation volume, user recommendation rate, evaluation content and date. In this paper, a total of 1698 product data were collected and after filtering some of the data, a total of 1620 valid data remains for analysis. The author collected data using the software finder "Octopus Collector" for a period of one month from October 1, 2018 to October 31, 2018. Using SPSS21.0 statistical analysis software, the regression model is established. The data is systematically analysed and studied while the impact of brand and online evaluation on product sales is discussed.

This study mainly discusses the comprehensive impact of the brand and word-of-mouth advertising on online inn sales. First of all, previous research is used to select the comment factors that have a significant impact on product sales. Secondly, in order to avoid the subjective deviation of the questionnaire survey results and biased data, this paper uses the Octopus Collector to collect Ctrip's real data for empirical analysis. Finally, based on the analysis of data results, the corresponding management recommendations are put forward. This paper uses a combination of theoretical research, empirical analysis, literature review and statistical analysis.

This paper collected the literature related to brand, word-of-mouth, sales and inns through the China National Knowledge Infrastructure and Wanfang data. The author consults, analyses and organizes, so as to find the intrinsic connection and attributed nature of related concepts. The study found that brands have an impact on sales where good brands and product sales are positively correlated. Word-of-mouth has a significant impact on sales, and scholars analyse the influence of word-of-mouth in different situations. But scholars in the study ignored the study of vacation rental product sales. Liao and Huang (2016) based their studies from a perspective of product quality, with the United States group network hotel sales as the background, investigating the impact of brand and online product reviews on product sales.

The researchers collected the real-time inn information and online evaluation of Ctrip's Lijiang and Jiaying. The empirical data was analysed using two statistical analysis tools, Excel and SPSS 21.0, to determine whether the research hypothesis is valid. The SPSS software is used to complete descriptive statistical analysis and correlation analysis followed by establishing a regression model based on correlation analysis to compare it with the brand strength of the regression model to ensure the validity of this empirical test and summarize the corresponding conclusions.

RESULTS AND DISCUSSIONS

This paper uses the method of calculating the difference in the percentage of scoring distribution to deal with the inconsistency of consumer scores. That is, using Ctrip network's designation of points where each inn is allocated a 1 to 5 point score and every score given within each range is calculated in percentage points to find the standard deviation and reduce the inconsistency of user comments. The data was collected by the Octopus Collector, which considered the October reviews collected as October's product sales. Ctrip netizens have more kinds of inns, both chain brands and local single-store less well-known brands.

Due to the lack of relevant brand asset data but in order to ensure credibility of the brand ranking, many scholars such as Liao and Huang (2016) divided it into strong and weak brands. According to the

information from Ctrip.com that was compiled by Octopus collector, a total of 1620 inns from Lijiang and Jiaxing made the list. The top 20 inns were designated Code 1 whereas the remaining 1600 inns were designated Code 0, of which, 67 inns were part of a chain-operated brand while the remaining 1553 inns were considered weak brands. Results of the descriptive and correlation analyses shown in Tables 1 and 2.

Table 1: Descriptive Statistical Analysis of Data

	N	Min	Max	Mean	Std. Dev
Price	1620	14	838	178.60	90.91
User referral rate	1620	0	1	0.98	0.05
Total rating	1620	0	5	4.40	1.16
Recommended	1620	0	5598	313.01	452.06
Total Comments	1620	1	5598	316.37	457.21
Oct Sales	1620	0	388	13.70	21.93
Brand	1620	0	1	0.04	0.20

Table 2: Data Relevance Analysis

	Price	User Referral Rate	Total Rating	Recommended	Total Comments	Oct Sales	Brand
Price	1						
User Referral Rate	0.019	1					
Total Rating	0.036	0.241**	1				
Recommended	-0.01	0.130**	0.185**	1			
Total Comments	-0.009	0.128**	0.184**	0.998**	1		
Oct Sales	-0.007	0.120**	0.170**	0.947**	0.947**	1	
Brand	0.079**	0.031	0.031	0.173**	0.171**	0.149**	1

**Indicates significant correlation at the 1% significance level

Linear Regression Analysis

Regression analysis is based on the relevant analysis, further study of the theory and method of statistical law between phenomena, emphasizing the causal relationship between the relevant variables, which can be judged by the prediction of the dependent variables by the establishment of the model. The problem sat out in this paper is the interdependence between online word-of-mouth and brand, as well as the impact of online word-of-mouth and brand ingress on product sales.

Therefore, according to the brand strength and weakness of different products, this paper establishes the online comment on the impact of the regression model on sales. From the relevant analysis table (Table 2), it can be seen in October sales and user recommendation rate, total score, recommended comments, total reviews, that brand has a strong correlation and price correlation is insignificant. Based on this regression model:

S represents the number of sales in October, X1 represents the user recommendation rate, X2 represents the total rating, X3 represents the total number of reviews, K represents the brand, k - 1 for strong brand, k-0 represents the weak brand, and the error value term is represented by the x. The exact equation is as follows:

$$s = \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + c + \gamma$$

where c is a constant.

When the brand is a strong brand (that is, K-1), the first thing was to carry out the equation model of the fit of the test in order to investigate whether the strong brand on the online sales of residential housing had an important impact. From Table 3, it can be seen that the multi-judgmental coefficient, the compound correlation coefficient R side is 0.984, the fit is better. Table 4 shows that at the 5% significance level, the probability of the p-value significance of the overall model is less than 0.01, which is statistically significant and the model as a whole is better.

Table 3: Fit Quality Test

Model	R	R Party	Adjusting R	Error of std. estimates
1	0.993	0.985	0.984	4.96442

Table 4: Variance Model

Model		Sum of sq	df	Average	F	Sig.
1	Regression	114119.361	3	38039.787	1543.483	<0.001
	Residuals	1725.179	70	24.645		
	Total	115844.541	73			

Table 5 shows the results of the regression analysis. From the data analysis results, it is evident that the coefficients in the model at the level of 5% of the significance of less than 0.05, statistically significant, indicating that the user recommendation rate, total score and total evaluation volume on the sales of residential housing has a significant impact, according to which the regression model is obtained.

$$s = 0.524x_1 + 0.281x_2 + 0.044x_3$$

Table 5: Coefficient Testing

		B	Standard Error	t	sig.
1	(Constant)	25.26	31.072	0.813	0.419
	User Referral Rate	0.524	31.363	6.305	0.0424
	Total Rating	0.281	0.608	5.263	0.0464
	Total Comments	0.044	0.001	65.538	<0.001

By comparing the strong brand model coefficients, it is found that the user recommendation rate has the greatest positive impact on the sales volume of residential accommodation, and for each additional unit of user referral rate, the sales volume increased by 0.524.

In the original model when the brand is a weak brand, that is, K-0, the author carries on the equation model fit excellence test, to explain whether the weak brand has an important impact on the online sales of residential accommodation. The results of the analysis are shown below:

From Table 6, we can see that the multi-judgmental coefficient, the compound correlation coefficient R side is 0.88, the fit is better. Table

7 shows that at the level of 5%, the overall model significance probability is less than 0.01, statistically significant, the model as a whole is better.

Table 6: Fit Quality Test

Model	R	R side	Adjusting R	Error of std. estimates
1	0.938	0.88	0.88	7.28749

Table 7: Variance Simulation Analysis

Model		The sum of sq	df	Average Party	F	Sig.
1	Regression	602448.977	3	200816.326	3781.322	<0.001
	Residuals	82316.54	1550	53.107		
	Total	684765.517	1553			

Table 8 mainly tests the significance of regression coefficients, and the coefficients in the model are less than 0.05 at the significance level of 5%, which is statistically significant, and the regression model is obtained from this:

Table 8: Coefficient Testing

		B	Std. Error	t	Sig.
1	(Constant)	-0.055	3.305	-0.017	0.987
	User Referral Rate	0.24	3.466	6.069	0.045
	Total Rating	0.93	0.166	6.562	0.040
	Total Comments	0.042	0	104.332	<0.001

$$s = 0.24x1 + 0.93x2 + 0.042x3$$

The regression results suggest that the user's recommendation rate, total score, the total comment volume on the user's coefficient are positive, the sales volume has a positive effect. That is, for every additional unit of the user's referral rate, sales increased by 0.24, by 0.93 per unit, and 0.042 for each additional unit of total reviews. By comparing the three coefficients of arguments, it is found that the total score has the greatest

impact on the sales volume of weak brands, far exceeding the impact of user recommendations and total reviews on product sales.

Impact of Brand and Online Reviews on Sales

Some scholars believe that online review ratings have an impact on consumer buying decisions (Stieler, 2017). Reviewing star and average star ratings have a significant impact on product sales. In the model built, the data analysis shows that the coefficients in the regression equation under different brand strengths are positive, indicating that the total score and sales have a positive correlation, and the higher the score, the greater the sales volume. However, the coefficient of total score in the strong brand model is 0.281, which is less than the coefficient of 0.93 in the weak brand. That is, the higher the score, the more positive the effect on the sales volume of weak brands is greater than the impact of strong brand sales. This conclusion is consistent with the original assumptions H_1 and H_3 .

The number of reviews is one of the important indicators of online reviews, which refers to the cumulative total number of comments by consumers who buy inn products. Some scholars have studied the factors affecting sales in different industries, such as films and books, and found that the number of online reviews has a significant positive impact on product sales. According to the model data analysis, that is, when $k=0$ and $k=1$, the total comment in the model is positive, indicating that the volume of comments and October sales are positively correlated. The more comments submitted, the larger the product sales volume. According to the conclusion of this analysis, the original hypothesis H_2 : the large volume of comments has a negative effect on sales volume. Compared with the weak brand model, in the strong brand model, the coefficient of total comments is 0.044, which is greater than the total comment coefficient of weak brands 0.042, reflecting that the positive impact of the total review volume of strong brands on sales is stronger than that of weak brands. The data suggests that the original assumption H_4 , when modified to strong brand will increase the positive impact of the volume of comments on sales.

In existing literature, scholars use consumer evaluation as a standard to measure the hotel's reputation, but the consumer recommendation rate can better reflect the hotel's reputation. This is due to

the time limit of the review where after the expiry time for customers to leave a review, the system will automatically default to praise, such as is the case for "Tmall" and other online e-commerce. Based on the character of the consumer, the scholar Meng and Ding (2013) found that even if the consumer has not been tempted by the merchant to write a fake review, it can become "overly relaxed" and "excessively perfect" caused by the deviation of comments and objective facts. User recommendations are different only when the services provided by inns and consumer expectations are consistent with or exceed the consumption expectation. That is, when the inn really meets the consumers' expectations and their needs, it can be recommended by consumers. In the above analysis, the recommended rate coefficient of the strong and weak model is positive, which has a positive effect on sales volume and presents positive correlation. However, in the strong brand model, the recommended rate coefficient is 0.524, which is greater than the recommendation rate coefficient of weak brands 0.24, reflecting that the recommendation rate has a stronger effect on the sales volume of strong brands than on the sales volume of weak brands.

CONCLUSIONS AND RECOMMENDATIONS

Brands and online reviews are crucial clues to consumers' judgment of product quality, but few scholars have combined them in the past, often examining the role of brands or online reviews separately. In fact, brands and online reviews are closely linked, and studies such as Li (2015) have found that characteristics such as brand strength, positive and negative reviews and the industry environment in which the company is located can affect product sales. This paper used Ctrip's Lijiang and Jiaying as the research object and aimed to explore the impact of brand and online reviews on Internet sales in the emerging product rural inn industry. As sales data for inn cannot be obtained, sales statistics can only be used by collecting product review data for October 2018. This paper studies the impact of brand strength on sales by introducing online reviews in three dimensions: consumer recommendation, total average rating and review volume, using the accessibility-diagnostic model as an explanation. The results show that the high evaluation volume has a positive effect on sales volume, and the total comment volume of strong brands has a stronger positive effect on sales volume than that of weak brands. High total rating

has a positive impact on the sales volume of the inn, and the positive effect of high total rating on weak brands is more obvious than the role of strong brands, and the high user recommendation rate has a greater impact on the sales of strong brands. Research confirms that in the current era of social media, the role of brands is crucial where brand strength and the impact on product sales is obvious. But when the brand strength is different and three-dimensional-value models are consistent, brand strength does not have a significant impact on sales, allowing weaker brands to have better sales figures comparatively.

This paper found that the role of the brand as a leading signal of product quality is still very prominent in which the brand can directly affect sales, and online reviews can affect product sales, such as the brand can reduce the negative effects of low-grade average score, strengthening the positive role of high ratings and high recommendation rates. Strong brands have a higher brand value. Consumer perception of strong brand products is much higher than weak brand products, so the impact of online comments on strong brand sales has not had a great impact on weak brands. On the contrary, brand strength has a regulatory effect on online reviews.

The study confirms that strong brands have a positive effect on sales by increasing the volume of reviews. Comment volume is one of the elements of online reviews. The more comments, the higher the volume of product sales, the more consumers love it, the more useful information potential consumers can get, the more conducive to understanding the product, the more trust is placed by potential consumers, which stimulate the desire to buy. This overturns the above analysis of information processing from the usable-diagnostic model, and the proposed hypothesis H₂, i.e. a negative relationship between the volume of comments and sales. However, another relationship (i.e. brand strength has a regulatory effect on online reviews) is confirmed in the data analysis. According to the accessibility-diagnosis model, the brand which is more accessible to consumers and more diagnostic than specific, mixed product reviews, can quickly help consumers build a specific impression of the product, so brand strength can enhance the positive impact of the volume of reviews on sales.

Online reviews are posted after the consumer experience and are more persuasive and credible than corporate ads. A high overall score can

increase the perceived quality of the product for potential consumers. Perceived quality improvements can give vulnerable brands more consumer recognition in terms of product quality, service and usage than for weaker brands with lower brand value. This paper selects the total evaluation score, total review volume and user recommendation rate as the three research dimensions of online reviews and find that the three elements have a positive effect on product sales. Among which the user recommendation rate has the greatest influence on strong brands whilst the total rating has the greatest impact on weak brand sales. The total review volume in the impact of strong brand product sales difference is insignificant, both of which are the secondary elements.

According to the regression model $s = \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + c + \gamma$, the analysis uncovered that when the values of x_1 , x_2 and x_3 are consistent, the sales volume of strong and weak brands varies with the independent coefficient. By observing the regression parameters of the strong brand model, it was found that each additional unit of user recommendation, total rating and total review volume, respectively, increased the strong brand sales volume of 0.849 units and 1.212 units of weak brand sales. Comparing the sales changes in October, it was found that when the brand strength was consistent with the three dimensions of online reviews, the influence of brand strength on sales was not significant, and the sales of weak brands were better than those of strong brands. This paper speculates from the data analysis that online reviews have a significant impact on the sales of inns.

But the difference between brand and online reviews of who is strong and who is weak cannot be applied to all circumstances. In the early period of inn business, both sides in the popularity and environment are at the same level, highlighting the brand strength. At this time, the influence of strong brands on sales volume is bound to be higher than that of weak brands. When weak branded inns grow steadily into the long-term, they would have accumulated a certain amount of customer reviews and evaluation, thereby improving its reputation to be just as trustworthy as stronger brands, nulling the competitive advantages of stronger brands.

Inns saw a ubiquitous rapid development from 2015 to 2018 relying on the backbone of OTA platform, especially on online sales. With regards to sales online, the role of brands cannot be ignored, where it

should be developed and established as online brands in the sales process. This study shows that brand as a signal of product quality, still plays an important role in sales. When a brand is strong, the brand can defend against a certain degree of negative exposure and reduce the damage to the inn. This is due to the possibility that strong brands have strong brand value, wherein some consumers with brand loyalty may not communicate negative experiences with the product, but are more inclined to attribute to their own reasons. But when brands are weak, consumers lack trust in their products, and consumers may attribute negative reviews to the product itself.

Therefore, despite the importance of reviews when selling products online, it is still necessary to build a strong brand. The above analysis found that when the brand strength is consistent with the value of different online comment segments, the influence of brand strength has no significant impact on sales volume and the sales of weak brands are better than strong brands. It can be explained that when the weak brand's network reputation and strong brand reputation is the same, the influence of the brand is weakened. Strong brand word-of-mouth to a large extent relies on the intrinsic value of the brand in communicating to consumers a sense of trust. When weak brands can achieve the same level of online reviews as strong brands, will they not also be promoted as an emerging strong brand? This article holds that in the period where the industry has not yet matured, brands and online reviews need to develop in unison. Online reviews need to be utilized to build good reputations while simultaneously developing the software and services of inns, to create the inn's inner culture. This will enable accommodation providers to fully tap the local natural scenery with the historical and cultural advantages, to offer a seamless authentic experience for tourists.

Branded inn chain management is an industry trend for the future. As the inn provides experiential products, unified brand management in terms of hardware so products and services have a basic bottom line and standards. Branding does not mean that the software is intrinsically consistent, because the key to the sale of a residential host's way of life, is a differentiated experience. The inn is to allow consumers to experience the local culture and life and within a short period of time, become a "local". Therefore, this article believes that the future sales of residential accommodation by the brand will be impacted further.

This paper is based on the research of scholars in the past to carry out empirical analysis. Although some progress has been made, certain limitations remain. First of all, due to the lack of specific sales data, this paper uses online comments instead of sales volume, resulting in inaccurate sample data. The scholar Gao, Sun and Wang (2016) found that the relationship between sales volume and the amount of comments is not linear, but rather matches a "U"-type relationship. Secondly, this paper uses only average scores to eliminate differences in scoring distribution. In fact, this does not completely eliminate the impact of inconsistencies in consumer preferences, and there are differences in internal consumer comments and how it influences decision-making along with other possibilities is worth exploring. Finally, this article does not study the content of online reviews.

ACKNOWLEDGMENT

The authors would like to thank all who helped in the data collection and analysis processes. The kind assistance from the reviewers and editors of this journal is much appreciated.

REFERENCES

- Chen, B. (2008). Empirical research on consumer online word-of-mouth communication based on network and trust theory. MA Thesis, Zhejiang University, China.
- Chernatony, L., MacDonald, M., & Wallace, E. (2011). *Creating powerful brands*. Butterworth-Heinemann.
- Gao, B. Sun, H., & Wang, H. (2016). The impact of online reviews on hotel reservation rate. *Tourism Tribune*, 1(4), 109-117.
- Hanson, A. W. (2000). *Principles of internet marketing*. South Western College Publication.
- Li, H. (2012). The impact of negative online reviews and their remedial measures on customer purchase intentions. MA Thesis, Donghua University, China.

- Li, Z. (2015). Research on the impact of OCR on sales under the regulation of brand strength and product maturity. MA Thesis, Harbin Institute of Technology, China.
- Liao, J., & Huang, M. (2016). Empirical research on online product reviews, brands and product sales based on hotel sales. *Chinese Journal of Management* 13(2), 122-130.
- Luo, Z. (2018). Research on the brand development of inns. Available at: [www. https://www.meadin.com/194769.html](https://www.meadin.com/194769.html) (Accessed 13 June 2019).
- Meng, M., & Ding, S. (2013). Analysis of behavior motivation of publishers of false product review information. *Information Science* 10(1), 100-104.
- Pan, Y. (2011). Empirical research on the impact of online reviews on sales revenue of experiential products with different popularity levels. MA Thesis, Beijing University of International Business and Economics, China.
- Stieler, M. (2017). *Creating marketing magic and innovative future marketing trends*. Springer Nature.
- Wang, J., & Yan, Q. (2013). Empirical research on the influence of online reviews of different hot search products on sales volume. *China Management Science* 23(2), 406-411.
- Wu, J. (2014). *Empirical research on the impact of online reviews on sales of new and used products*. MA Thesis, Beijing University of Posts and Telecommunications, China.
- Yang, S. Xu, F., & Chen, J. (2009). Dynamic loyalty identification of online consumer brand choice - An empirical study based on panel data of an online shopping mall in China. *Industrial Engineering and Management*, 3(1), 112-117.