

Impact From the Attribute Review of A Tourist Product On A Consumer's Perceived Usefulness

Yan Liu¹, Qian Li² and Qizhi Yang^{3*}

^{1,2,3} College of Tourism Sichuan Agricultural University Chengdu, Sichuan 611830, China

*714547454@qq.com

*Corresponding author

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Abstract. Online review serves as an important referential basis for consumers to make purchase decisions. Guided by the theories of product attributes, the paper divides online review into vertical attribute review and horizontal attribute review. With the experiment method, it explores how these two types of product attribute reviews affect a consumer's perceived usefulness. It first divides a consumer's perception into perceived quality and unique perception, whose mediating effects are then tested respectively. According to research findings, three conclusions can be drawn: (1) Both horizontal attribute review and vertical attribute review have significantly positive impact on a consumer's perceived usefulness; (2) Compared with vertical attribute review, horizontal attribute review affects a consumer's perceived usefulness more significantly; (3) Perceived quality exerts partial mediating effect in the relations between vertical attribute review and perceived usefulness; unique perception exerts partial mediating effect in horizontal attribute review and perceived usefulness. The study has substantially enriched the perspectives of studying online reviews.

Introduction

Ever since China ushered in the Internet era, the power of high and new technology has been continuously changing our daily life and substantially reforming the mode of consumption. Now, online shopping has been an important shopping mode. Currently, commercial tourist websites and apps represented by the booking of travels, hotels and tickets have been the main channel through which a tourist inquires about information and make online booking. According to the 41th China Statistical Report on Internet Development published by CNNIC in 2018, the number of customers booking travels online had reached 376 million in December 2017, which increased by 76.57 million and 25.6% than the end of 2016 [1].

Tourist product is characterized with intangibility and identity between production and consumption. As a result, consumers are uncertain about which tourist product to purchase. Hence online review plays a particularly important role: A consumer may adopt useful online reviews, which affects their purchase decisions. Online review generally refers to the positive or negative descriptions made by a consumer after purchasing a product through online shopping [2]. Many scholars have conducted valuable research on the perceived usefulness of online reviews. According to the literature review, current research mainly studies from the characteristics of reviewers, review receivers and reviews, yet seldom focuses on how a product attribute review affect perceived usefulness. In a shopping scenario, a consumer pays much attention to the attribute characteristics of a product, which are the most direct means for them to know about the product [3]. The paper has two innovative points: firstly, divide the attribute review of a tourist product into horizontal attribute review and vertical review guided by the theories of product attribute reviews; secondly, discuss about how product attribute products affect a consumer's perception from this perspective. The study has substantially enriched the research perspectives of online reviews.

Literature Review

Product Attribute Review

In their studies on product attribute reviews, researchers originally paid attention to the concept and classification of product attribute review. Afterwards, scholars shifted their focus and started to combine product attribute and online review in discussions.

When studying product attributes, some scholars think a product is the set of a series of varied attributes [4]. Kotler defined the concept of product attribute in *Marketing Management*: A product attribute refers to the characteristics of a product that meets a consumer's needs to some extent [5].

Numerous researchers focus their study on the classification of product attributes and divided product attributes into different categories with according standards. The paper thus reviewed the typical and representative studies that classified product attributes (see Table 1).

Table 1 Review of product attribute classifications

Representative Figure	Era	Classification	Descriptions
Szybillo and Jacoby	1974	Internal Attribute	Internal attribute refers to the physical property of a product, including form and taste.
		External Attribute	The external attribute refers to non-inherent special characteristics and commonly the attributes endowed by people, including product image and reputation [6].
Olson and Reynolds	1983	Abstract Attribute	Abstract attribute is external and multi-dimensional, such as product brand and advertisement
		Physical Attribute	Physical attribute refers to the visible physical properties of a product, such as size, material and package [7].
		Functional Attribute	Functional attribute refers to an attribute that brings basic functions to a consumer;
Voss	2003	Hedonic Attribute	Hedonic attribute refers to the happiness or meaning brought by a product to consumers [8].
Sun	2011	Vertical Attribute	Vertical attribute refers to an attribute regarding which a consumer has unified and specific preferential standards for.
		Horizontal Attribute	Horizontal attribute refers to the attribute regarding which a consumer has no unified preferential standards for and often has varied evaluation standards based on personal likes. [9]

Thus it can be seen most scholars classify product attributes into two categories. Regarding content, different attribute classifications have certain similar characteristics. The study adopted Sun's classification of product attributes—horizontal attribute and vertical attribute. A consumer's preference standards for the same product attribute vary. For instance, Sun's standards for classifying product attributes are based on whether the consumer's preference standards for the product attributes are consistent. A vertical attribute generally concerns the basic functions and fundamental elements of a product, such as different standards for assessing whether a product has a good or poor quality, such as the battery life and image quality of a camera. Vertical attribute is also known as quality attribute. A horizontal attribute involves the consumer's different standards for assessing a product based on his preferences, such as the appearance design and a color of a camera. It is also known as matching attribute.

Currently, the studies on combining product attribute and online review have yielded limited research findings. According to the literature review, domestic scholar Man Chen et al. discussed about how the product nature review affects product sales [10]; Minxue Huang studied how the differences between reviews and product attribute affect a consumer's willingness for purchase [11]; Cui Yang analyzed the role played by product attribute in online review effect [12].

Perceived Usefulness

Researchers have made fruitful achievements in the theoretical study on perceived usefulness through varied research methods, including text mining method, empirical research method and critical incident method. Research objects are concentrated in tangible products, including automobiles and cameras. The paper thus conducted literature review centered on the connotations of perceived usefulness and how online review affects perceived usefulness.

Regarding the connotations of perceived usefulness, Davis was the first to put forward the TAM (Technology Acceptance Model) in his study on the information system field, which believes perceived usefulness refers to how much the technology can improve people's productiveness when using a new technology [13]. Kempf and Smith put forward perception diagnosis equals perceived usefulness and defined it as a consumer's perception for reviewing a commodity in shopping [14]. Jiang and Benbasat thought perception diagnosis refers to the perception that helps a consumer to evaluate product information [15]. Mudambi defined it as a consumer accepts and measures the value of online reviews in making decisions for purchases [16]. Chinese scholar Lan Peng defined perceived usefulness as the perception that a potential client group thinks the reviews given by other consumers in life help them to make purchase decisions [17].

It is generally considered the more useful an online review is, the more impact it has on a consumer's willingness for purchase. Given consideration to this, many online merchants who have noticed the important roles played by online reviews especially set up an online review section for useful review or useless review on the webpage to measure perceived usefulness through the number of clicks. For instance, Douban film review section sets " " as useful and " " as useless to quantify differences through the number of clicks.

Regarding the impact of online review on perceived usefulness, the author conducted a literature review and found researchers mostly discuss about the impact of perceived usefulness from three characteristics of online review. Firstly, the impact of a reviewer's characteristics on perceived usefulness: Hu and Zhang found a consumer pays attention to such factors as the value of a review, the reviewer's personal information and whether the reviewer is an active client [18]. Schindler's study pointed out the reviewer's information helps the consumer to assess quality [19]. Secondly, how the characteristics of a review affects perceived usefulness: Ghose's study showed the expression mode and the polarity of a review affect a consumer's perceived usefulness [20]. Jie Liu's research conclusions showed the quality, number and validity of online reviews positively affect perceived usefulness [21]. Thirdly, how the characteristics of a review receiver affect perceived usefulness: Park and Lee put forward a review receiver's experience in online shopping and his sensitivity towards interpersonal relations affect perceived usefulness [22]. Connors put forward a consumer with a high knowledge level takes the review that covers product information as a more useful review [23].

Survey Conclusions

Based on the literature review mentioned above, the author began studying with the basic concept of research topic and gained clear understanding of the connotations and classification of product attributes, the study on online study combined with product attribute, the concept of perceived usefulness and the influence factors for online review to affect perceived usefulness. Such research findings provide theoretical support for subsequent study and offer certain thoughts. When discussing about how online review affects perceived usefulness, most researchers take the characteristics of review, reviewer and review receiver as three influence factors for perceived usefulness and neglect the specific information of online reviews on product attribute.

Research Design

Research Hypothesis

Impact of Product Attribute Review on A Consumer's Perceived Usefulness

As is mentioned above, most studies focus on researching how the characteristics of review, reviewer and review receiver affect perceived usefulness. Seldom do scholars make specific studies based on the information of evaluation contents. In fact, consumers often comment on product attributes when writing a review, which may serve as valuable reference information that affects other consumers' choices. Researchers, such as Sarivastava, thought a consumer's behavior is affected by product attribute [24]. Scholars such as Decker studied and found product attributes significantly affect a consumer's purchase behavior [25]. Considering that a consumer pays attention to the information of product attributes, online merchants tend to provide such information to consumers actively. For instance, Gome e-merchants provide information on air-conditioner

products, such as color, power and efficiency; the information on the books sold on Amazon website includes language, format and size; the information on computers sold in JD.com includes resolution, thickness and weight. Although researchers seldom pay attention to the reviews on product attributes in online reviews, such information is noticed and referred to by consumers when they browse online reviews.

A vertical attribute review describes the functions and quality information of a product. The horizontal attribute is a consumer's description of the product based on his personal preferences and feelings. Compared with horizontal attribute review, vertical attribute review includes richer and more practical information on product attributes. A horizontal attribute review mainly represents the information on a consumer's personal subjective feelings. Essentially speaking, a tourist product is a service product and differs from a tangible product. In general, a consumer pays more attention to raw materials, the quality of components and specification parameters of a physical product. Regarding a service-oriented tourist product, a consumer may pay more attention to personal-experience projects, such as local cultures, natural resources, architectural style, local customs and practice. Hence the review information on such attributes stimulates a consumer's perceived usefulness more effectively. For this reason, a horizontal attribute review may have higher perceived usefulness than a vertical attribute review.

In conclusion, a consumer's perceived usefulness is significantly affected by a product attribute review, including horizontal and vertical attribute reviews. Compared with vertical attribute review, horizontal attribute review has higher perceived usefulness. Hence the paper put forward the following three hypotheses:

H1: Vertical attribute review significantly affects a consumer's perceived usefulness

H2: Horizontal attribute review significantly affects a consumer's perceived usefulness

H3: Compared with vertical attribute review, a horizontal attribute review affects a consumer's perceived usefulness more profoundly.

Mediating Impact of Consumer's Perception

A vertical attribute review generally concerns product functions. Such a characteristic determines that a consumer may be aware of the function and quality of a product when browsing vertical attribute reviews. It enhances the consumer's perceived quality of the product and further affects perceived usefulness.

For a horizontal attribute review, product quality and function depend on different consumers' preferences. Hence perception varies from one consumer to another. When a consumer receives a horizontal attribute review, he may have a unique perception and think about "why the same product may vary so widely in online reviews" [26], which thus affects his perceived usefulness. The paper put forward two hypotheses based on such considerations.

H4: Perception quality causes mediating effect in the connections between vertical attribute review and perceived usefulness.

H5: Unique perception causes mediating effect in the connections between horizontal attribute review and perceived usefulness.

Model Construction

Based on the research topic and existing research findings, the paper aims to provide a new research perspective for studying how online review affects a consumer's perceived usefulness and helps to construct a research model suitable for research objectives. The paper studied from an innovative perspective: how product attribute review affects a consumer's perceived usefulness. Taking a consumer's perception as an intermediary variable, it divides a consumer's perception into perceived quality and unique perception to test their mediating effect. The research model is listed as the figure.

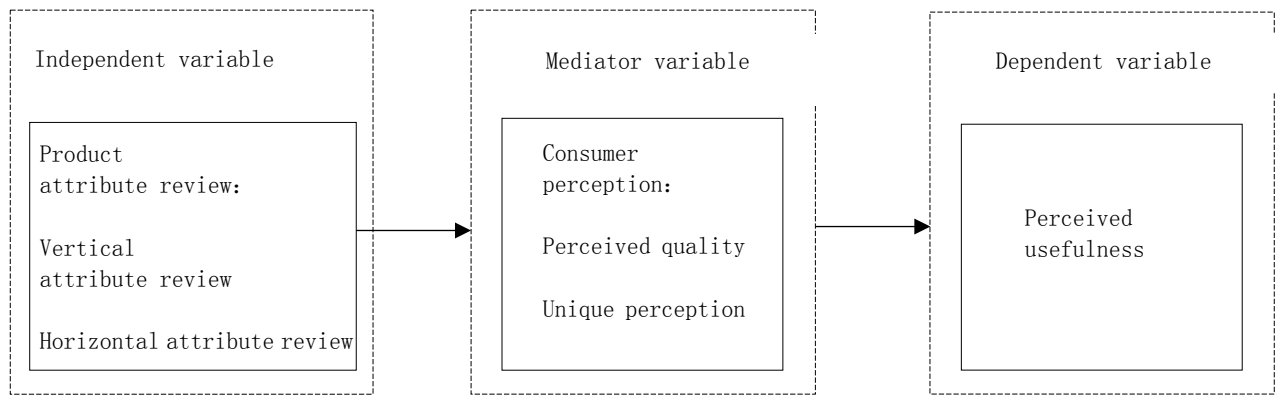


Fig. 1 Research model

Research Methods

Literature Analysis Method

To clarify the research theme, the author collected a large number of materials related to online reviews from literature at home and abroad. After determining the theme, the author retrieved documents concerning online review, product attribute review and perceived usefulness. Through classification and key reading, the author gained knowledge of basic contents, development status and research achievements of current studies. Next, the author clarified the connections between product attribute review and the theory of perceived usefulness. Combining with the research theme, the author determined the research model and hypothesis, which provided theoretical support for the paper.

Research Methodology

The author conducted a scenario simulation experiment, prepared different experimental materials and collected data through questionnaire surveys. The scenario simulation experiment was divided into four groups, namely vertical attribute review group vs. horizontal attribute review group and non-horizontal attribute review group vs. non-vertical attribute review group. In addition, four survey questionnaires were designed. There were 180 samples, with 45 samples for each group.

Quantitative Analysis Method

The author analyzed data collected from the experiment with SPSS 19.0 statistical analysis software. A series of methods was adopted, including descriptive statistical analysis, reliability analysis, independent sample T test and regression analysis. In addition, the author proved research hypotheses put forward in the paper and drew research conclusions by analyzing statistical results.

Pre-test Experiment

The pre-test experiment was conducted before the official experiment to accurately control vertical attributes and horizontal attributes. The pre-test mainly involves two aspects: firstly, collected online reviews from tourist websites to find what product attributes are valued by consumers when they purchase a tourist product. Next, the author classified selected product attributes into horizontal and vertical attributes. Then the author selected four attributes from each category as components for the horizontal attribute group and vertical attribute group.

Firstly, the author randomly selected 25 online reviews for tourist products of different destinations and prices on Mafeng.com, Qunar and Tuniu.com respectively. After analyzing 100 reviews, the author arranged and classified them into 18 categories of tourist product attributes, including catering service, traffic condition, natural resources and local conditions & customs

Next, the author represented the definitions and cases of horizontal and vertical attributes to 40 interviewees, requiring them to think about the classification questions of such attributes. Lastly, the author randomly coded and arranged 18 attributes with scores from 1 (very vertical attribute) to 7 (very horizontal attribute) in accordance with the Likert scale; After all interviewees completed filling out their questionnaires, the experimenter interviewed five interviewees to confirm they accurately understand the specific definitions of “horizontal attribute” and “vertical attribute” in the questionnaire. As is shown by the results of questionnaire scores, seven attributes with a low mark

(M=2.10) were classified into vertical attributes and 11 attributes with a higher mark (M=5.84) were classified into horizontal attributes.

Next, the author randomly coded classified vertical attributes and horizontal attributes into two questionnaires ranked in order of importance. Through scenario simulation, the author allowed interviewees to think about the importance of product attributes appeared in questionnaires. The other 40 interviewees selected four attributes whose importance ranked forward among horizontal and vertical attributes respectively. Based on the selection frequency of each attribute, the author eventually selected four representative attributes with the highest frequency from horizontal and vertical attributes, namely catering service (P=29), traffic condition (P=27), hotel service (P=26), guide service (P=25), cultural resource (P=35), architecture style (P=31), natural resource (P=29) and local conditions & customs (P=29).

Table 2 Classification of horizontal attributes and vertical attributes

Vertical Attribute	Horizontal Attribute
Catering Service	Cultural Resource
Traffic Condition	Architectural Style
Hotel Service	Natural Resource
Guide Service	Local Conditions and Customs

Official Experiment

The experiment aims to prove horizontal and vertical attribute reviews affect a consumer's perceived usefulness, the specific differences between such impact and the mediating effect of a consumer's perception.

Regarding the materials of the official experiment, the author selected four online reviews from tourist websites corresponding to the horizontal and vertical attributes of tourist products concluded in the pre-test. In addition, the author prepared non-vertical and non-horizontal attribute review materials to prevent unnecessary disturbance factors. Such experimental materials only presented specific reviews and arranged the details of text formats, such as unified the format and size. In addition, the number of each review is within 70 ~80 words.

The questionnaire scale is divided into two parts, including consumer's perception and perceived usefulness. The perceived quality and unique perception are directly measured based on selected vertical attributes and horizontal attributes, such as "I think the quality of guide services provided by the tourist product is guaranteed" and "I think the tourist product has unique natural resources." The perceived usefulness referred to the typical scale of Park & Lee, which worked out four measurement items. All questions were scored based on Likert's seven-mart scale, from 1= Strongly agree to 7=Strongly agree.

All interviewees participated in the experiment were college students. There were two reasons for selecting such students: Firstly, college students have rich experience in online shopping. According to the Report on the Consumption Behaviors and Brand Perception of Chinese College Students in 2015, only 3% of students had never tried online shopping [27]. Secondly, college students are highly homogenized in population statistics, which enhances the control over extra variables, prevents the personal information of interviewees from interfering experimental results and improved the internal validity of research. Thus it can be seen college students are reasonable interviewees.

The official experiment involved 180 college students, who were randomly divided into four groups, namely the vertical attribute review group, the horizontal attribute review group, the non-horizontal review group and the non-vertical attribute review group. There were 45 students in each group. The experiment adopts a scenario simulation: Suppose the interviewee is going to travel in A and reads an online review about tourist products on the tourist website. After reading all online comments presented on the website, interviewees were required to answer the questions concerning consumer's perception and perceived usefulness and fill out basic personal information.

Statistical Analysis

Scale Reliability Test

To guarantee the stability and reliability of research results in both questionnaires, the author conducts a reliability test for the measurement items and overall scale with SPSS 19.0. Analytical results are shown in Table 3 and Table 4.

Table 3 Reliability test of vertical/non-vertical attribute review groups

Scale	No.	Item	Cronbach's α Coefficient
Perceived Quality	A1	I think the tourist product's guide service has a guaranteed quality	.838
	A2	I think the tourist product's hotel service has a guaranteed quality	
	A3	I think the tourist product's catering service has a guaranteed quality	
Perceived Usefulness	A4	I think the tourist product's traffic condition has a guaranteed quality	.900
	A5	These reviews help me to know about the tourist product	
	A6	These reviews include important information on tourist products	
	A7	These reviews provide me with useful information about the tourist product	
	A8	These reviews help me to decide whether to purchase the tourist product or not	
Total Scale			.862

According to the validity test results of the table, the Cronbach's α coefficient of four questions involved by perception quality is 0.838; the Cronbach's α coefficient of four questions involved by perceived usefulness is 0.900; the Cronbach's α coefficient of the total scale is 0.862. These values all meet the indicator requirement of the reliability test, showing the scale has high reliability.

Table 4 Reliability analysis of horizontal/non-horizontal attribute reviews

Scale	No.	Item	Cronbach's α
Uniqueness Perception	B1	I think the tourist product has unique natural resources	.720
	B2	I think the tourist product has a unique architectural style	
	B3	I think the tourist product has unique cultural resources	
	B4	I think these tourist products have unique customs and practices	
Perceived Usefulness	B5	These reviews help me to know about this tourist product	.808
	B6	These reviews include important information on the tourist product	
	B7	These reviews provide me with useful information on tourist products	
	B8	These reviews helps me to decide whether to buy the tourist product or not	
Total Scale			.804

According to the results of reliability test, the Cronbach's α of four uniqueness perception items involved is 0.720. The Cronbach's α of four items of perceived usefulness is 0.808. The Cronbach's α of the total scale is 0.804, which is in line with the indicator requirement of the reliability test, showing the scale has high reliability.

4.2 Statistics Information of Interviewees' Basic Information

The paper collected interviewees' basic information in four aspects, including gender, age, net age and surfing time. All analytical results are shown in Table 5.

Table 5 Basic information of interviewees

Characteristics	Category	Number	Percentage
Gender	Male	73	40.6
	Female	107	59.4
Age	<18	0	0
	18~19	68	37.8
	20~21	45	25.0
	22~23	67	37.2
	>24	0	0
Net Age	<1 year	0	0
	1~3 years	7	3.9
	4~6 years	56	31.1
	>6 years	117	65.0
Time of Surfing	<1 h	0	0
	1~3 h	43	23.9
	4~6 h	76	42.2
	>6 h	61	33.9
	Sum	180	100.0

According to the basic information of interviewees, 73 interviewees were males, accounting for 40.6% of 180 interviewees; 107 interviewees were females, accounting for 59.4%. The ratio of men to women is balanced. Regarding the statistical analysis of age, all interviewees were college students aged between 18 and 24; 68 interviewees were aged between 18 and 19, accounting for 37.8%; 45 interviewees were aged between 20 and 21, accounting for 25.0%. Interviewees' net age were generally long: only seven interviewees' net age was between 1 and 3 years, accounting for 3.9%; about 56 interviewees' net age was between 4 and 6, accounting for 31.1%; 117 interviewees' net age was over 6 years, accounting for 65%. According to the statistics of interviewees' daily surfing time, 43 interviewees surf on the Internet for about 1 to 3 hours, accounting for 23.9%; 76 interviewees surf on the Internet for 4~6 hours, accounting for 42.2%; 61 interviewees surf on the Internet for more than six hours every day, accounting for 33.9%. It shows interviewees generally surf the Internet for a long time every day.

Independent Sample T Test

Main impact test of how vertical attribute review affects consumer's perceived usefulness: After interviewees browsed vertical attribute reviews and non-vertical attribute reviews, the changes in the consumer's perception usefulness is: M vertical attribute review = 5.04 > M non-vertical attribute review = 4.46, $p < 0.001$, showing vertical attribute review has positive impact on a consumer's perceived usefulness and H1 is valid.

Main impact test of how horizontal attribute review affects consumer's perceived usefulness: After interviewees browsed horizontal attribute reviews and non-horizontal attribute reviews, the changes in the consumer's perception usefulness is M horizontal attribute review = 5.42 > M non-horizontal attribute review = 4.74, $p < 0.001$, showing horizontal attribute review has significant positive impact on a consumer's consumption usefulness and H2 is valid.

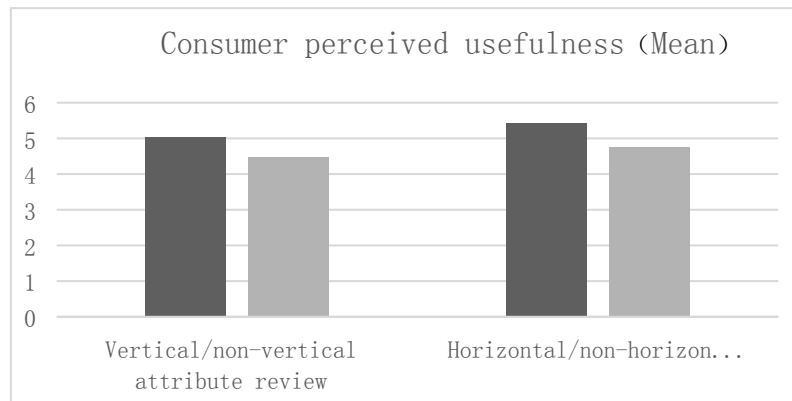


Fig. 2 How Two Categories of Product Attribute Reviews Affect A Consumer's Perceived Usefulness

In addition, the independent sample T test was adopted to analyze whether two types of product attribute reviews significantly affect a consumer's perceived usefulness. All results are shown in Table 6 (see below).

Table 6 Independent sample T test of how two types of product attribute reviews affect consumer's perceived usefulness

Group	Mean Value	感知有用性	Levene Test of Variance Equation		Test of Mean Value		
			F	Sig.	t	df	Sig.(Bi-di)
Vertical Attribute	5.04	Perceived Usefulness	Equal Variance Assumed		-2.645	88	.010
Horizontal Attribute	5.42		2.428	.123	-2.645	87.369	.010

According to the results of independence sample T test, there are results of two T tests, namely equal variance assumed and unequal variance assumed. Referring to the results of variance equality test, Sig. >0.05 in the table mentioned above, showing the hypothesis variance is valid. Hence the results of T test should be based on the results of equal variance assumed. The variance values of the perceived usefulness in two experiment groups were respectively ΔM vertical/non-vertical group=5.04—4.46=0.58; ΔM horizontal/non-horizontal group=5.42—4.47=0.95, Sig. =0.010 (Sig.<0.05). Analytical results show that different product attributes significantly affect a consumer's usefulness. Compared with vertical attribute review, horizontal attribute review has bigger impact on a consumer's perceived usefulness. Hence H3 is valid.

Regression Analysis

According to research hypothesis, the paper tested the intermediary effect with the three-step regression analysis method put forward by Barron and Kenny. The research set virtual variables (1=vertical/horizontal attribute reviews; 0=non-vertical/horizontal attribute review) to conduct the statistical analysis. Analytical results are shown in Table 7 (see below).

Table 7 Regression analysis of intermediary effect of perception quality

Analysis of Intermediary Effect of Perception Quality			
Model No.	Model 1	Model 2	Model 3
Route Relationship	Vertical Attribute Review→ Perceived Usefulness	Vertical Attribute Review→ Perceived Quality	Horizontal Attribute Review, Perception Quality→ Perceived Usefulness
Perceived Quality	.337**	.472***	.224*
Adjusted R ²	.104	.214	.139

Note: *** p<0.001, ** p<0.01, * p<0.05.

According to the table mentioned above, the vertical attribute review significantly affects perceived usefulness (M1, $\beta=0.337$, $p<0.01$); the vertical attribute review significantly affects perception quality (M2, $\beta=0.472$, $p<0.001$); After adding the quality of intermediary perception, the vertical attribute review significantly affects the consumer's perceived usefulness (M3, $\beta=0.224$, $p<0.05$); however, the regression coefficient of vertical attribute review increases from 0.337 to 0.224, meaning the perception quality plays a partial intermediary role played by vertical attribute affects a consumer's perceived usefulness and H4 is valid.

Table 8 Regression analysis of the intermediary effect of unique perception

An Analysis of Intermediary Effect of Unique Perception			
Model No. Route Relation	Model 4 Horizontal Attribute Review→ Perception Usefulness	Model 5 Horizontal Attribute Review→ Unique Perception	Model 6 Horizontal Attribute Review, Unique Perception→Perception Usefulness
Unique Perception	.446***	.344**	.330**
Adjusted R ²	.190	.109	.337**
			.283

Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$.

According to the table mentioned above, horizontal attribute review significantly affects a consumer's perceived usefulness (M4, $\beta=0.446$, $p<0.001$); horizontal attribute review significantly affects unique perception (M5, $\beta=0.344$, $p<0.01$); After adding the intermediary unique perception, horizontal attribute review still significantly affects a consumer's perceived usefulness (M6, $\beta=0.330$, $p<0.01$); however, the regression coefficient of the horizontal attribute decreased from 0.446 to 0.330, meaning the unique perception plays partial intermediary role in how horizontal attribute review affects a consumer's perceived usefulness and H5 is valid.

Research Conclusions

Main Conclusions

The paper studied on how product attribute review affects a consumer's perceived usefulness. Firstly, the paper started with the theoretical studies on product attribute review and perceived usefulness. Next, the paper constructed a research model and put forward research hypothesis. Then the paper introduced research methodology and proved hypotheses with the experiment materials from tourist website. Lastly, the paper proved such hypotheses through empirical research. The research drew five conclusions.

(1) Vertical attribute review has significantly positive impact on a consumer's consumer perception. When selecting a tourist product on a tourist website, he may pay attention to some functional needs brought by the product. Hence the vertical attribute reviews in experimental materials, including guide services, hotel services, catering services and traffic conditions happen to meet consumers' varied functional needs. The correlations between vertical attribute and consumer's perception are self-evident. According to experimental results, vertical attribute review has significantly positive impact on perceived usefulness. In fact, a consumer may be affected by vertical attribute review when purchasing a tourist product, which happens to prove research conclusions.

(2) Horizontal attribute review has significantly positive impact on a consumer's perceived usefulness. When proving how horizontal attribute review affects perceived usefulness, the horizontal attribute reviews presented to interviewees included natural resources, architectural style, cultural resources and local conditions & customs. Different from functional horizontal attributes, such horizontal attributes better meet a consumer's enjoyable needs. Experimental results also proved horizontal attribute review significantly affects a consumer's perceived usefulness.

(3) Compared with vertical attribute review, horizontal attribute review has more impact on a consumer's perception. To prove whether horizontal attribute and vertical attribute affect a consumer's perceived usefulness, the paper also put forward corresponding hypotheses. According

to statistical results, horizontal attribute review has more impact on perceived usefulness than vertical attribute review. It shows a consumer is more willing to meet their unique demands for human resources and local conditions & customs during their travel than guide service and catering service. This fact is similar to Qigeng Li's research conclusion, which believes subjective evaluations have higher perceived usefulness than objective attribute reviews [28].

(4) Perceived quality plays a partial intermediary role when vertical attribute review affects perceived usefulness. With a three-step regression analysis method, the paper proved the intermediary role played by perception quality in horizontal attribute review and perceived usefulness. According to experimental results, perceived quality plays a significant intermediary role. Such a role is represented in three aspects: firstly, the vertical attribute review significantly affects perceived usefulness; secondly, vertical attribute review significantly affects perceived quality; thirdly, vertical attribute review still significantly affects a consumer's perception after the intermediary perception quality is added. It shows a consumer has perceived quality for a tourist product when receiving vertical attribute reviews, which further affects the consumer's perceived usefulness of the tourist product.

(5) Unique perception plays a partial intermediary role when horizontal attribute affects perceived usefulness. The paper eventually proved the intermediary role played by unique perception. According to analytical results, unique perception plays a significant role, which is represented in the significant impact from horizontal attribute review on perceived usefulness; horizontal attribute review significantly affect unique perception; even after intermediary unique perception is added, horizontal attribute still significantly affects a consumer's perception. It shows a consumer has unique perception when reading horizontal attribute reviews, which thus affects his perceived usefulness of the tourist product.

Theory and Management Significance

The conclusions drawn by the paper are of high theoretical and management significance. First of all, these conclusions have enriched the perspectives of studying how online review affects a consumer's perceived usefulness. Past researchers seldom focus on the roles of product attributes when discussing about factors influencing the perceived usefulness. Conversely, the paper noticed the fact that a consumer pays attention to the information on product attributes when browsing online reviews. By discussing about how product attribute review affects a consumer's perceived usefulness, the paper enriched the perspectives of studying how online review affects perceived usefulness. Secondly, enterprises can set up more diversified and targeted online reviews from the perspective of product attribute reviews. For instance, the original pattern where a customer writes down an online review in one review box can be changed into writing in several review boxes. For instance, the customer may write down his reviews on guide services, hotel services, natural resources and folk customs and practices. This new mode will present more complete product attribute reviews to potential consumers and stimulate their perceived usefulness.

Research Limitations and Prospects

The study mainly has two limitations: Firstly, the study controlled the polarity of product attribute reviews and displayed only positive reviews to interviewees. Hence future studies may consider scenarios with uneven product attribute reviews and how product attribute review affects a consumer's perceived usefulness. Secondly, there was no moderator variable in the variable setting. Hence moderator variables can be introduced to study how they adjust the way product attribute review affects a consumer's perceived usefulness.

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