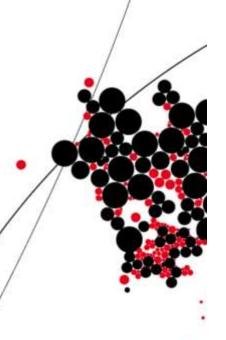


UNIVERSITY OF TWENTE.

Faculty of Behavioural, Management and Social Sciences (BMS)

No Picture No Truth?

the influence of review format and review valence on Chinese consumers' purchase intention.



Qiu Min S1775634

Dec. 2017

Supervisor:

Prof. Dr. Menno De Jong Li Qian

Faculty of Behavioural, Management and Social Sciences

University of Twente P.O. Box 217 7500 AE Enschede

ACKNOWLEDGEMENTS

First of all, I want to take this great opportunity to thank my first supervisor Prof. Dr. Menno De Jong. His professional academic skills and rich practical experience allow me to stand on the shoulder of a giant and have a great vision of this industry. Additionally, I am deeply grateful to Li Qian for her prompt feedback and clear guide which help me avoid a lot of mistakes. Thanks for their patience and dedication on this master project.

My sincere thanks also go to all the participants who sacrifice their precious time and voluntarily contribute their great ideas and thoughts to this project. Without their kind help and positive cooperation, it is impossible to complete the task on time.

Last but not least, I want to thank my parents and my dearest friends who are always be my side. They spare no effort to support me on both financially and mentally. It is their encouragement that gives me the strength to give up what I have back in China and the courage to pursue my dream in an unfamiliar environment without any regrets. During this short period of overseas study, I once experienced fear and anxiety, felt lost and helpless. Thanks for their company which helps me go through all the hard times and overcome all the difficulties. More importantly, I feel honored and thankful that they have such a high expectation on me and a strong faith in me, which are the motivations of me moving forward.

Qiu Min

12-30-2017

ABSTRACT:

The Internet empowers every single consumer to voice his/her thoughts, opinions, and comments by offering the online review as a new approach. While the wide dissemination of online reviews facilitates potential consumers' ability to obtain additional information to avert risks, thousands of reviews are constantly generated, posted and shared which cause an information overload. Besides that, due to the anonymous and unidentified nature of online reviews, the trustworthiness of the content has been considered as a major concern among consumers. Although researchers have tested how consumers assess the credibility of online reviews via review length, spelling error, writing style, to name but a few, the way of information being presented remains underexplored. Little is known whether the content with or without visual images would have an impact on consumers' perception of the online review and if it affects the strength of the review valence on purchase intention.

Therefore, this study attempts to give a better understanding 1) to what extent do online review formats (no photo, photo with pure product display, photo with product and human element) influence Chinese consumers' perception of information credibility; 2) whether there is an interaction effect between review format and valence on purchase intention; 3) what is the role of product type (search goods, experience goods) in the process. A 3 x 2 x 2 within-subjects experimental design was used to identify the factors affecting the willingness of prospective consumers shopping online. Participants were randomly exposed to conditions where they faced two different goods and the online reviews were manipulated. During the test, subjects were told to purchase two particular items for their close friends as birthday gifts. Therefore, they were requested to read the product information and the provided online reviews and later they were asked to fill in a questionnaire where their perception of information credibility, self-reported review effect, attitudes towards the review, and purchase intention were measured and analyzed accordingly.

The findings derived from this research indicate that the presentation format of online reviews has no impact on perceived information credibility. But it is noteworthy that when consumers face the positive reviews, the review effect can be increased by adding images into the content. Conversely, when consumers are indulged in the negative reviews, visual cues can neutralize the negative influence. Thus, retailers might consider leveraging a variety of review formats to deal with different review directions. Regarding the product type, unfortunately, there is no significant effect being observed in this study.

KEYWORDS: online review, review format, presentation format, review valence, information credibility, review effect, purchase intention

TABLE OF CONTENTS

1.	I	INT	RODUCTION	5
2.	•	THE	ORETICAL FRAMEWORK	7
	2.1	L	The role of online reviews in online shopping	7
	2.2	2	The influence of review format on information credibility	8
	2.3	3	The influence of review format on review effect	8
	2.4	ļ	The influence of review format on consumer attitude towards the review	8
	2.5	;	The moderating role of product type	9
	2.6	5	Hypotheses	10
	2.7	,	Theoretical model	10
3.	ı	ME.	THODOLOGY	12
	3.1	L	Design	12
	3.2	2	Product selection	13
	3.3	3	Pre-test	13
	3.4	ļ	Manipulation	14
	3.5	;	Measurement	15
	3.6	5	Procedure	16
	3.7	,	Participants	17
4.	ı	RES	ULTS	18
	4.1	Ĺ	Descriptive statistics	18
	4.2	<u> </u>	Multivariate and univariate analysis of variances (MANOVA & ANOVA)	
	4	4.2.		
		4.2.		
	4.3	}	Overview of hypotheses	
5.			CUSSION AND CONCLUSION	
			General discussion	
	5.2		Theoretical contributions	
	5.3		Practical implications	
	5.4		Limitations and future research directions	
	5.5		Conclusion	
D,			e	
	-		¢ Α	
•	oper			52

1. INTRODUCTION

The emergence of Internet has not only changed the way company runs a business but also raised the position of consumers in the marketing communications. Before, a purchase decision was usually made based on the limited information which in most cases was provided by the seller. Furthermore, customers barely had a chance to hear a large number of comments from peers who had the personal experience with the services or the products. However, consumers nowadays are capable to acquire sufficient product reviews and at the same time obtain the actual consumption experiences shared by other customers as well. Moreover, the advent of Web 2.0 encourages consumers to become initiative and proactive by creating, communicating, and delivering their evaluations, opinions, complaints, recommendations, and suggestions through online reviews, which in turn might influence potential consumers' decisions (Karimi & Wang, 2017).

Therefore, it is not surprising that the online review has been regarded as an important and effective marketing tool which attracts much attention across a variety of disciplines. For instance, social scientists try to explore the motivation for reading or writing online reviews (Hennig-Thurau & Walsh, 2003; Lee, 2013) while researchers in communication field aim to identify the factors of how consumer behaviour is affected by product reviews (Chatterjee, 2001). Additionally, plenty of research has been found regarding how consumers evaluate online reviews through different attributes such as review length, review volume, time of posting, rating valence and extremity (Ghose & Ipeirotis, 2011; Korfiatis, García-Bariocanal & Sánchez-Alonso, 2012; Chevalier & Mayzlin, 2006; Tsao, 2014). Nevertheless, the way of online reviews being presented has been largely overlooked probably because most product reviews are textual. Metzger and Flanagin (2013) also state that the existing literature has put primary focus on verbal information in spite of many other types of information presented on websites. Thus, this report aims to fill the research gap by investigating whether and how different review formats influence the way online reviews being perceived.

Electronic commerce (e-commerce) industry has been developed by leaps and bounds in China, the market is expected to grow \$1.7 trillion by 2020 (Goldman Sachs Report). However, like all the online consumers in the world, Chinese netizen is facing numerous risks when dealing with online shopping, the services and products being "intangible" and impossible to be examined immediately, no assurance provided during the transaction process, to name but a few (Einwiller, Geissler & Will, 2000). More importantly, as the number of online reviews continues growing and unrealistic information floods in the e-commerce sites, potential customers become skeptical about the trustworthiness of the content. Therefore, the author attempts to test if images can play a role in detecting the credibility of the consumer reviews considering the fact that some e-commerce sites actually offer the opportunity to upload photos in the comments. In other words, is online review perceived more reliable to Chinese consumers by adding either no picture or different pictures into the reviews?

Another main purpose of this research is to check if there is an interaction between review valence and review format on purchase intention among Chinese consumers. Abundant research has reached a clear conclusion that review valence (positive or negative) has a direct effect on consumer purchase intention (Doh & Hwang, 2009; Park & Lee, 2009a). But the strength of the effect differs by taking the consideration of individual factors, such as customer involvement (Park & Kim, 2008) and consumer expertise (Zou, Yu & Hao, 2011), which are hardly controlled by merchants. Hence, the objective of this research is to identify whether the review format can be a catalyst to amplify or weaken the effect of review direction on behaviour intention during online shopping.

Hereby, the research question is formed as follow:

RQ: To what extent does online review format influence Chinese consumers' perception of information credibility and its interaction effect with review valence on Chinese consumers' purchase intention.

In the upcoming chapter, a theoretical framework regarding online reviews based on existing studies is introduced. Subsequently, the methodology employed in this research and the process of the experiment are explained, followed by the results of data analysis. Finally, this paper ends with a discussion including the theoretical contributions, practical implications, limitations and future research directions.

2. THEORETICAL FRAMEWORK

The proliferation of e-commerce accelerates the growth of global economy, on the other hand, exaggerates the uncertainty during the purchase process. People begin to realize it is a big challenge for them to evaluate the products online. Hence, they seek more information to reduce the risks before making a buying decision (Cheung, Luo, Sia & Chen, 2009). The online review as a supplement offers individuals the relevant information, such as product descriptions, functions, user experience and perhaps service after-sale. However, the phenomenon of information overload forces consumers to face another critical issue, which information should be trusted. In this theoretical framework, the topic of how people evaluate the consumer reviews under online shopping environment is discussed on the basis of studies conducted in the past few years.

The remainder of this chapter is arranged as follows. The relevant variables are firstly introduced and elaborated along with the relationships between them. Subsequently, the hypotheses are presented and this section finally ends with a theoretical model.

2.1 The role of online reviews in online shopping

An online product review is a special form of electronic word-of-mouth (eWOM) that is written and published by people who have the first-hand experience with the products or services on the Internet (Chatterjee, 2001). Previous studies have made a significant contribution to verify that online reviews are an essential part of an e-commerce site. A relevant survey claims that 63% consumers are more willing to make a deal with the website where it offers the product reviews by previous customers and 61% users admit that they have the habit of reading reviews before purchase (Charlton, 2015). The customer review plays an assistant role for potential users to perform a more accurate evaluation before they further interact with the items (Jiménez & Mendoza, 2013).

Moreover, online reviews, as additional information, are considered as a way to alleviate customers' uncertainty in the decision process (Jiménez & Mendoza, 2013). Apparently, offline shopping enables consumers to inspect the product with their own hands. But, in the online shopping process, consumers have no opportunity to examine the product before making a purchase decision, no clear idea of who they are making deal with, these potential risks inhibit them to produce a buying behaviour. With the existence of consumer reviews, customers are able to obtain sufficient product information to reduce their concerns (Grabner-Kraeuter, 2002). King, Racherla and Bush (2014) also argue that the presence of customer reviews improves the social presence of the site which relieves the insecurity during online shopping and eventually might be beneficial to a purchase action.

Like all the other messages, online reviews convey the information either positive, negative or neutral. The positive or negative orientation of a statement regarding an object is defined as review valence, or review direction, which is one of the most important dimensions of the reviews. Positive reviews usually occur when consumers having pleasant consumption experiences whereas negative reviews are often associated with complaint and dissatisfaction. Plenty of evidence has been provided to verify that review valence has a direct influence on consumers' attitudes towards a brand (Lee, Rodgers & Kim, 2009) or company sales (Chevalier & Mayzlin, 2006; Doh & Hwang, 2009; Park & Lee, 2009a). Therefore, the first hypothesis is formulated as below:

H1: The positive (negative) review generates a positive (negative) effect on consumers' purchase intention.

2.2 The influence of review format on information credibility

In light of the growing importance of consumer reviews in the digital era, some retailers actively encourage consumers to post positive feedback with certain rewards because they see consumer reviews as another cost-efficient tool to promote their products. Furthermore, the convenience of posting reviews and the uncontrollability of review content create opportunities for disseminating fake information. Some unethical companies even try to manipulate reviews in order to influence purchase decisions. Individuals, on the other hand, become more and more skeptical about the messages they acquired on the Internet and start to challenge the authenticity of the information. Consequently, the credibility of the content has been considered as a major issue disturbing the consumers.

As an average consumer, people usually lack sufficient knowledge to discern the authenticity of the reviews (Singh, Irani, Rana, Dwivedi, Saumya & Kumar Roy, 2017). Thus, a substantial research can be found trying to answer the question what attribute of review is regarded as a predictor of a trustworthy message (Filieri, 2016; Li, Lee & Liu, 2011)? Mudambi and Schuff (2010) claim that information credibility is primarily determined by the content of the message, which includes the words being selected, the written style being chosen, the format being presented, anything associated with the way of the information being conveyed (Schindler & Bickart, 2012). This study attempts to extend the existing literature on review content by introducing review format and to investigate whether it has an influence on consumers' perception of information credibility.

The presentation format is believed to affect consumers' cognition and behaviour in a multi-dimension way. A recent study shows that information presented in a text and photo combined format is regarded as the most powerful way to drive travel motivation compared with other presentation formats (Lee & Tussyadiah, 2010). Additionally, Mudambi and Schuff (2010) claim the reviews contain more specific product information are usually perceived as more credible by consumers. In the same vein, we argue that consumers might consider the review with images more reliable because these additional photos provide more clues of product details which help users to better evaluate the product quality. Accordingly, the second hypothesis is formulated as below:

H2a: The review presented as text and image in conjunction is more credible compared with text alone.

2.3 The influence of review format on review effect

Besides the information credibility, the quality of the message has also been proved to affect the persuasiveness of the content (Hovland, Janis & Kelley, 1953). That is to say, if the content is perceived to be a strong argument, the chances are much higher that receivers would accept the information and change their attitudes or even behaviour. Then, a text-based review only has one mode of presentation, as a result, the information it contains is limited. An online review with both verbal and visual information, however, ensures the detail of the product being presented through several modes. Therefore, online reviews with additional visual cues are assumed to be more persuasive than the messages conveyed by text alone. Furthermore, according to media richness theory, multiple cues and richer representations of information make a message clearer and better to be understood. In line with

these concepts, it is reasonable to infer that review format affects the effectiveness of the message, the hypothesis is formulated as below:

H2b: The review presented as text and image in conjunction generates a higher review effect compared with text alone.

2.4 The influence of review format on consumer attitude towards the review

Due to easy access and anonymous feature of the internet, the amount of online consumer reviews is getting big day by day. As a consequence, it has become a huge and overwhelming burden for potential consumers to process such information. One may wonder whether embedding images into review content can make the tasks entertaining and intriguing, eventually results in an attitude change towards the reviews?

Research has claimed that images serve not only information function but also emotion arousal function (Hassanein & Head, 2007). First of all, the existence of pictures makes information being presented in a more vivid and dynamic way. Therefore, it may help consumers to better understand the meaning of the content. Second, images are more likely to catch readers' attention and facilitate consumers' enjoyment. As Lee and Shin (2014) said, "the visual cue may arouse greater interest in the particular review and motivate otherwise uninterested consumers to read it more closely" (p360). Based on the aforementioned statements, we argue that the review with images can lead to a positive attitude towards the message since images enhance the attractiveness of the content and the pleasure of reading it.

Apart from that, images are also considered as an effective approach to increase the trust in the e-commerce environment. Compared with off-line business, the lack of trust is recognized as one of the key barriers to the flourish of online shopping because e-commerce is always associated with risks and uncertainty (Gefen & Straub, 2003, Miranda & Saunders, 2003). However, this issue can be solved by simply embedding a photo with a smiling face (Cyr, Head, Larios & Pan, 2009). Thus, we argue that the photo in the review with a human figure may reduce the anxiety and results in a positive attitude towards the message because images improve the social presence and generate the trustworthiness. Hence, in line with these statements, the hypothesis is formulated as below:

H2c: The review with a human figure in the image generates a positive effect on consumers' attitude towards the review.

To conclude, image enhances the appeal of the message and makes the content easy to be comprehended, accordingly, consumers might evaluate this particular review differently. Then, is there a possibility that online customers are more likely to purchase a product after reading positive reviews in a text and image combined format? Therefore, this article further assumes:

H3: The positive review with image cues generates the highest purchase intention compared with other conditions.

2.5 The moderating role of product type

To date, there are wide varieties of products on the e-commerce site ranging from necessary goods to luxury items. Based on Nelson's (1970), most products can be categorized into two groups, namely

search goods and experience goods. A search product refers to an item that consumers can easily make an estimation based on the acquired information regarding its quality before purchase. Contrasting with search goods are experience goods, which are considered as items whose qualities are difficult to assess before direct interacting with them.

Considering the nature of these two product types, online reviews might have a different impact on consumers' behaviour. For example, Senecal and Nantel (2004) claim that participants are more willing to take advice from others on experience goods (wine) than search goods (calculator). Obviously, it is easier for consumers to evaluate a search product and be confident with their assessment since search attributes are easy to compare. Conversely, consumers rely more on others' reviews to get knowledge about the key quality attributes of experience goods. In line with these statements, this article assumes the effect of review valence on purchase intention is more strongly moderated by experience goods than by search goods. More specifically

H4: The positive (negative) review generates a larger positive (negative) impact on purchase intention for experience goods compared to search goods.

2.6 Hypotheses

After presenting a review of existing literature regarding online reviews and relevant variables, the according hypotheses are proposed:

H1: The positive (negative) review generates a positive (negative) effect on consumers' purchase intention.

H2a: The review presented as text and image in conjunction is more credible compared with text alone.

H2b: The review presented as text and image in conjunction generates a higher review effect compared with text alone.

H2c: The review with a human figure in the image generates a positive effect on consumers' attitude towards the review.

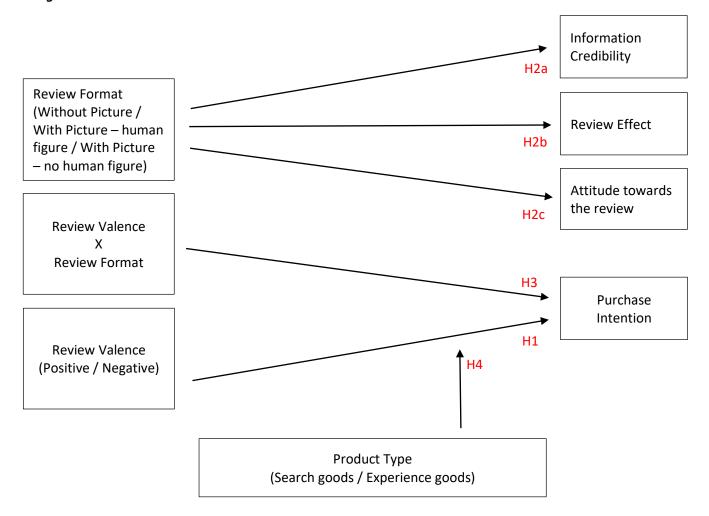
H3: The positive review with image cue generates the highest purchase intention compared with other conditions.

H4: The positive (negative) review generates a larger positive (negative) impact on purchase intention for experience goods compared to search goods.

2.7 Theoretical model

To illustrate the relations between aforementioned concepts, a theoretical model is formed in next page.

Figure 2.1. Theoretical Model



3. METHODOLOGY

In this section, the research methodologies employed to explore the topic of online consumer reviews is discussed.

3.1 Design

In order to test the hypotheses outlined above, a 3 X 2 X 2 scenario-based within-subjects experiment was conducted as described in Figure 3.1. The experiment was performed via an online questionnaire where the participants were randomly exposed to one of six scenarios with different online review content.

Figure 3.1 Research Design

		Reviev	v Valence	
		Negative	Positive	
ne review	text only	group 1	group 4	
Online consumer re	Image + text (Image with human element)	group 2	group 5	
	Image + text (Image with pure product)	group 3	group 6	

The aim of this experiment was three-fold: 1) to validate the effect of embedding images into online reviews on readers' perceived credibility of the information, 2) to explore if there is an interaction effect between review format and valence on consumers' purchase intention, 3) to check whether and how product type moderate the impact. Therefore, in this research, the dependent variables were information credibility, self-reported review effect, attitude towards the reviews and purchase intention which were examined through an online questionnaire. Independent variable was review format which was presented into three types, text only, text with an image of the pure product and text with an image including both the product and a human figure. Review valence was another independent variable which was classified into two directions, positive and negative. The product type was manipulated as well in order to check if it stood for a moderate role.

During the experiment, participants faced one of six scenarios where the way of online consumer reviews being presented and the review valence were manipulated. To minimize the effects of individual preferences and differences among study participants, a measure within-subject design was used, meaning that each participant faced two conditions with both search goods and experience goods. Furthermore, it was also considered as a more economized method to obtain adequate sample sizes within a limited time.

The online survey consisted of the scenario description, the experimental stimuli, and measures for the variables. First, a brief scenario was given, describing a situation where the participants were instructed to imagine they were planning to purchase two particular products and now were looking for certain information on an e-commerce site. The chosen products were based on the definition of search and experience goods but were further tested during the pre-test. The brand of the products was not specified to avoid familiarity (Wood & Lynch, 2002). But the price was announced on the product page

in order to generate a higher risk thus intensified consumers' sensitivity to the online reviews and increased the influence of online reviews on customers' behaviour (Maslowska, Malthouse & Viswanathan, 2017). Finally, to simulate a real purchasing environment, participants were exposed to five different online reviews since the study showed that people usually read at least five reviews before making an online purchase (Park & Lee, 2009a). Certainly, only one piece of review among five was manipulated. After reading the scenario, the subjects were guided to view their allocated version of the reviews and complete the survey.

3.2 Product selection

Based on the description of search goods, it was relatively easy to acquire the information about product's key attributes and to evaluate the quality. Therefore, there were two products fill into this category, the backpack and the travel trunk. The product descriptions on Taobao. com heavily emphasized the functional features and benefits. For example, a travel trunk was listed in dimensions, weight, volume, material, wheel as well as a lock. The similar condition applied to the page of a backpack.

For experience goods, existing studies had largely dealt with information or entertainment products such as books, movies, music CDs, and video games. However, the price of these examples usually was not in the same range of a premium travel trunk. Given the thought that product price was also another factor influencing the effect of online reviews, two other goods were selected to fit the requirement as being experience goods, the instant camera and the artificial-intelligence robot for children education. Both products had several functional features, for example, a camera was compared on its image resolution (megapixels), battery, and variety of shooting modes which can be judged prior to purchase. However, the key attributes of a camera, image quality was highly required by testing. Similarly, a product test was important for consumers to purchase an AI robot, especially the product was targeting children. Another reason to choose these four items was that these products were applicable to both genders which avoided the gender bias.

3.3 Pre-test

The pre-test was conducted among 20 participants before collecting the data in order to determine which two products were selected as the best representative of search and experience goods respectively. To identify the aforementioned issue, the questions from Weathers, Sharma and Wood (2007) were used. Participants were asked to answer questions regarding search and experience qualities for each product.

Search Qualities:

- 1. I can adequately evaluate this product using only information about the product's attributes and features provided by the retailer or the manufacturer.
- 2. I can evaluate the quality of this product simply by reading information about the product. Experience Qualities:
- 3. It is important for me to see this product to evaluate how well it will perform.
- 4. It is important for me to touch this product to evaluate how well it will perform.
- 5. It is important for me to test this product to evaluate how well it will perform.

Participants' responses were based on a 5-point Likert scale ranging from 'Totally disagree' to 'Totally agree'. The products were shown randomly and their images were presented simultaneously to give the respondents a clear and vivid perception of the products.

During the pre-test, 9 males (45%) and 11 females (55%) participants were reached through WeChat. The mean age was 28 with a standard deviation of 5.30. The result in Table 3.1 demonstrated that people considered the instant camera and the AI robot as experience goods whereas the backpack and the travel trunk as search goods. It was noticeable that there was not a big gap between search and experience quality of each item. Hence, the one with larger absolute values on mean difference was selected in each category in order to avert the search and experience quality being too close to be classified by subjects, the figure was highlighted in bold. Finally, a backpack was selected to be a representative of search product and an instant camera as the relatively suitable item for experience product in this study.

Table 3.1. Pre-test Result on Product Category

Product	Searc	ch Quality	Experie	nce Quality	Difference mean		
	N	Mean	Std. Deviation	Mean	Std. Deviation	(search - experience)	
Instant Camera	20	3.73	0.499	4.00	0.405	-0.28	
Al Robot	20	3.75	0.574	3.78	0.533	-0.03	
Travel Trunk	20	4.33	0.712	3.65	0.696	0.68	
Backpack	20	4.43	0.591	3.70	0.725	0.73	

^{*} measured on a 5-point Likert Scale (1=strong disagree; 5=strong agree)

3.4 Manipulation

For devising realistic online reviews, the content was adapted from authentic consumer reviews on the e-commerce sites such as Taobao.com, jd.com. First, several online reviews relevant to these selected products were collected. Then, the stimulus was formulated based on the positive sentences extracted from these comments as a positive review. Subsequently, the review content was further edited and modified in order to clearly and completely narrate a pleasant shopping experience. To avoid confounds, the negative review was created based on the manipulated one, the content was about the exact same aspects of the product but described in a negative direction. Both reviews with opposite valence had the same amount of words (around 60 Chinese characters) to avoid the effect of review length. The same method was used to develop the stimuli for all products.

After that, one positive, one negative and two neutral comments were chosen to compose other four reviews as the constant variables. Similarly, these reviews were originated from the existing e-commerce sites but without any adjustment. The ratio of the positive and negative review (1:1) was arranged in order to avoid the effect of review volume on consumers' judgement. Finally, all the reviews were scrutinized by people to determine if there was any confusion or unclear of the revised reviews.

In the same vein, all the photos were collected from the existing reviews on Taobao.com or jd.com, generated by consumers who had bought the products. Take an instant camera as an example, several photos for a camera with the human figure involved and pure product display were firstly downloaded. Then, to make sure the reviewed product can be fully and clearly presented in the photos, those photos not meeting the requirement, for example, the blurry, the overexposure or the underexposure, etc. were eliminated. The same principle was applied to select the review photos of other items. The final experiment stimuli were presented in Appendix A.

3.5 Measurement

To evaluate the respondents' purchase intention, a 7-point Likert scale was administered ranging from 1 = totally disagree to 7 = totally agree (Baker & Churchill, 1977). The construct contained five statements as listed below:

After reading all the information, it makes me desire to buy the product I will consider buying the product after reading the overall information I intend to try the product presented in the previous information In the future, I intend to seek out the product presented in the previous information In the future, I intend to buy the product presented in the previous information

In the same way, to determine the effect of information format on consumers' perception of credibility, a 7-point Likert scales ranging from strongly disagree to strongly agree adapted from Prendergast, Ko, and Yuen (2010) was used to measure the overall credibility of the message. The concept was measured by:

I think this review is convincing. I think this review is credible.

I think this review is accurate.

Regarding consumers' attitude towards the reviews, a dragged bar ranging from zero to one hundred was used to measure how respondents feel about the online reviews. The items were originally proposed by Lowry, Wilson & Haig (2014) but slightly change to fit into this study:

As per this presented online review, how would you rate its attributes regarding attractive, appealing, interesting, rational, reliable and consistent?

Last but not least, in order to investigate the effect of online review, a self-reported review effect contains three items from Jeon and Park (2003) on a 7-point Likert scale were used before participants started to answer the questions regarding information credibility. The questions were as follow:

I pay a close attention to this review when making a purchase decision.

I will refer to this review in my purchase decision.

This review crucially affects my purchase decision.

Each construct aforementioned was composed based on the validated measures from the existing literature. Then, the items were carefully examined, revised or developed in order to apply to this study. Therefore, factor analysis and Cronbach's Alpha were used to measure the validity and reliability of the constructs. Table 3.2 gave an overview of the final outcomes of the measured items:

Table 3.2. Factor Analysis and Cronbach's Alpha

Comptunet	lham		Compo	nent	
Construct	Item	1	2	3	4
Purchase Intention	After reading all the information, it makes me desire to buy the product.		.73		
α= .88	I will consider buying the product after reading the overall information.		.84		
	I intend to try the product presented in the previous information.		.81		
	In the future, I intend to seek out the product presented in the previous information.		.86		
	In the future, I intend to buy the product presented in the previous information.		.86		
Self-reported	I pay a close attention to this review when making a				.83
Review Effect	purchase decision.				
α= .87	I will refer to this review in my purchase decision.				.84
	This review crucially affects my purchase decision.				.76
Information Credibility	I think this review is convincing.			.78	
$\alpha = .91$	I think this review is credible.			.81	
	I think this review is accurate.			.85	
Attitude towards the review	As per this presented online review, how would you rate its attributes (not attractive-very attractive)?	.83			
α = .95	As per this presented online review, how would you rate its attributes (not appealing-very appealing)?	.88			
	As per this presented online review, how would you rate its attributes (not interesting-very interesting)?	.88			
	As per this presented online review, how would you rate its attributes (not rational-very rational)?	.84			
	As per this presented online review, how would you rate its attributes (not reliable-very reliable)?	.83			
	As per this presented online review, how would you rate its attributes (not consistent-very consistent)?	.83			

The analysis categorized 17 items into four components as expected. All the numbers of Cronbach's Alpha were greater than 0.60 which suggested that the questionnaires had a high degree of reliability.

3.6 Procedure

Test subjects were randomly assigned to one of the six scenarios with a different way of online consumer reviews being presented and manipulated review valence. Subjects were firstly appreciated for their willingness to participate in the research and then informed the objective of the task was to contribute to a project, therefore their data were under strict protection. Then they were guided to read a description of a scenario where he/she was about to make a purchase decision regarding two gifts for their close friends. Subsequently, they faced a screenshot of an e-commerce pages. The screenshot was based on the layout of Taobao but without any brand logo to avoid the influence of familiarity. Since the online survey was mainly distributed via mobile, the screenshots captured were from Taobao APP. Subjects were allowed to take enough time as they wish to read the information on the screenshots which included a brief product description from the retailers and five product reviews. The second review was the manipulated one, which was consisted of either a text message only or a combined format with both text and image. The picture was either with the human figure or pure product display.

Besides, the review valence was either positive or negative. The other four product reviews remained the same over all conditions with one positive, one negative and two neutrals in only text format.

After viewing the screenshot of the first product, questions regarding their purchase intention toward the reviewed product were shown to collect data. Then, subjects were guided to review the second product in the same flow, followed by questions about their purchase intention towards the second item. Subsequently, respondents were asked to complete the rest of the questionnaire which consisted of three parts. First of all, respondents were asked how they applied the manipulated review presented in the scenario during the purchase decision. Secondly, respondents were required to answer to what extent do they agree with the following statements regarding the attributes of this particular review content. In the end, respondents were requested to fill in the basic demographic background including age, gender, and occupation. Questionnaire for this study was presented in Chinese.

3.7 Participants

An online survey software Qualtrics was used to collect sample data. In order to have enough subjects for research analysis, each condition was required to collect at least 20 respondents. In total, 246 subjects were approached via WeChat, WhatsApp and face to face to participate in this study, among which 154 questionnaires were fully completed. To truly represent the real population, the selected participants of this study were aiming at those age from 20 to 40 by taking the reference of the demographics of Chinese netizen with online purchase ability (CNNIC). Therefore, 19 responds were deleted due to age control. The final sample size resulted in 135 subjects with 80 females (59%) and 55 males (41%). The mean age of the respondents was 29.16 and a standard deviation of 5.85. The majority of the respondents were company employees (77.8%). 22.2% of all respondents currently were students. The distribution of the respondents to the six conditions was presented in table 3.3.

Table 3.3. Demographic Data and Distribution of Experimental Conditions

Group		Age	Gend	der	Occu	pation
	N	M (SD)	Female	Male	Student	Employee
Negative X No picture (1)	23	25.13 (2.75)	15	8	16	7
Negative X Picture with Human (2)	24	30.25 (5.46)	13	11	4	20
Negative X Picture without Human (3)	21	30.86 (6.02)	12	9	2	19
Positive X No picture (4)	22	32.32 (5.08)	14	8	1	21
Positive X Picture with Human (5)	20	30.70 (4.74)	11	9	0	20
Positive X Picture without Human (6)	25	26.36 (6.81)	15	10	7	18
Total	135	29.16 (5.85)	80	55	30	105

There were some differences between groups in terms of respondents' occupation. Group 1 mainly consisted of students whereas other groups were mainly composed of employees. Therefore, ANOVA and Chi-square were used to analyze whether the sample distribution is homogeneous among conditions. The result of ANOVA test suggested there was a significant difference in the distribution of age over conditions (F(5,264) = 13.355, p < .001). Hence, age was used as a covariate in the analysis. The result of Chi-square test indicated there was a difference in the distribution of respondents' occupation inside the conditions (F(5,264) = 84.777, p < .001), but there was no difference observed in gender (F(5,264) = 1.931, p = 0.859). Hence, the occupation was used as an independent variable in the analysis.

4. RESULTS

In this part of the paper, the results of the experiment are displayed and elaborated. The data is analyzed by IBM SPSS Statistics 23. This chapter is organized in the following order; first, the descriptive statistics is used to present the general results of the participants' perception of the online reviews and their purchase intention under each condition. Then the paragraph is followed by an analysis of variance to test if the stimuli have the significant effects on the dependent variables. Finally, an overview of the hypotheses outcome is presented. In the next section, the important findings are highlighted and further discussed, followed by a conclusion.

4.1 Descriptive statistics

Table 4.1 lists the mean score and standard deviation of four different variables: self-reported review effect, information credibility, attitude towards the reviews and purchase intention under twelve conditions respectively.

Regarding the self-reported review effect, the mean score of the three review formats does not differ much, which can be interpreted as a first indicator that review format does not have an effect on review effect. Interesting, the negative reviews are detected to result in a stronger review effect compared to the positive reviews towards both search and experience goods.

The data of information credibility reveals an unexpected outcome. Subjects rate the text-based reviews as the most credible messages, followed by the review with a photo of a human figure and the review with a photo of a pure product display. The same performance also appears in the separate conditions of search and experience goods.

The mean score of attitude towards the reviews in search goods indicates that the review with a photo of a human element generates the most positive attitudes while in experience goods, the review in text format reaches the highest score. Additionally, the negative reviews are detected to be more attractive/trustworthy than the positives reviews, thus lead to a positive attitude towards the review itself.

In terms of purchase intention, it is visible that the positive reviews generate a higher purchase intention than the negative reviews. Besides, in both search and experience goods, the text-based reviews achieve the highest buying intention compared with other two formats although the mean scores of the different review formats are close to each other.

4.2 Multivariate and univariate analysis of variances (MANOVA & ANOVA)

The mean scores in Table 4.1 suggest that there are differences between conditions. In order to compare whether the difference is significant, a multivariate analysis of variance is applied. The result of Wilks' Lambda is shown in Table 4.2 and indicates only the alpha of review valence is significant. In addition, age as a covariate variable demonstrates a significant effect. A univariate of analysis is also conducted to further explore the effect of independent variables on different dependent variables. The overview of the statistical outcomes is presented in Table 4.3. The significant effect is highlighted in bold.

Table 4.1. Descriptive Statistics

			Search	Goods	Experience Goods					
		No Picture	Picture without Human	Picture with Human	Total	No Picture	Picture without Human	Picture with Human	Total	
		M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
Self-reported Review Effect*	Positive	4.7 (1.6)	4.6 (1.5)	5.2 (1.1)	4.8 (1.4)	4.7 (1.4)	5.2 (1.2)	5.0 (1.2)	5.0 (1.3)	
	Negative	5.6 (0.9)	5.3 (1.5)	5.1 (1.5)	5.3 (1.3)	6.1 (0.8)	5.3 (1.5)	5.3 (1.5)	5.5 (1.4)	
	Total	5.2 (1.4)	4.9 (1.5)	5.1 (1.3)	5.1 (1.4)	5.4 (1.3)	5.3 (1.3)	5.2 (1.4)	5.3 (1.3)	
Information Credibility*	Positive	5.1 (1.4)	4.5 (1.7)	5.0 (1.8)	4.8 (1.7)	4.7 (1.7)	4.7 (1.6)	4.6 (1.4)	4.7 (1.5)	
	Negative Total	5.1 (1.4) 5.1 (1.4)	4.5 (1.5) 4.5 (1.6)	4.8 (1.5) 4.9 (1.6)	4.8 (1.5) 4.8 (1.6)	5.1 (1.4) 4.9 (1.6)	4.4 (1.3) 4.6 (1.5)	4.9 (1.4) 4.8 (1.4)	4.8 (1.4) 4.7 (1.5)	
Attitude towards the	Positive	49.9 (28.4)	53.0 (24.5)	59.1 (24.7)	53.8 (25.8)	54.6 (26.3)	58.6 (22.3)	57.6 (22.3)	57.0 (23.4)	
Review**	Negative	64.7 (19.4)	56.4 (19.2)	59.5 (26.7)	60.3 (22.1)	68.2 (15.8)	56.3 (24.7)	62.2 (24.2)	62.4 (22.1)	
	Total	57.5 (25.1)	54.5 (22.0)	59.3 (25.5)	57.1 (24.1)	61.5 (22.5)	57.6 (23.2)	60.1 (23.2)	59.7 (22.8)	
Purchase Intention*	Positive	4.9 (1.7)	4.5 (1.5)	4.8 (1.7)	4.7 (1.6)	5.0 (1.0)	4.8 (1.2)	4.4 (1.3)	4.8 (1.2)	
	Negative	3.9 (2.0)	3.3 (1.6)	3.7 (1.7)	3.7 (1.8)	4.0 (1.6)	4.1 (1.3)	4.5 (1.7)	4.2 (1.6)	
	Total	4.4 (1.9)	4.0 (1.7)	4.2 (1.7)	4.2 (1.8)	4.9 (1.4)	4.4 (1.3)	4.5 (1.5)	4.5 (1.4)	

^{*} measured on a 7-point Likert Scale (1=strong disagree; 7=strong agree)

^{**} measured on a scale from 0 to 100 (0=not attractive/trustworthy; 100=very attractive/trustworthy)

Table 4.2. Multivariate Analysis of Variances

		Wilks' Lambda Value	F	Sig.	Partial Eta ²
Covariate	Age	.956	2.800	.027	.044
	Review Valence	.952	3.094	.016	.048
	Review Format	.983	.537	.829	.009
	Product Type	.985	.944	.439	.015
	Occupation	.993	.436	.782	.007
	Review Valence * Review Format	.953	1.482	.161	.024
	Review Valence * Product Type	.999	.084	.987	.001
	Review Valence * Occupation	.996	.221	.926	.004
	Review Format * Product Type	.992	.256	.979	.004
	Review Format * Occupation	.991	.276	.974	.005
	Product * Occupation	.996	.250	.909	.004
	Review Valence * Review Format * Product Type	.993	.215	.988	.004
	Review Valence * Review Format * Occupation	.996	.255	.906	.004
	Review Valence * Product Type * Occupation	.999	.033	.998	.001
	Review Format * Product Type * Occupation	.994	.170	.995	.003
	Review Valence * Review Format * Product Type * C	Occupation .999	.040	.997	.001

Table 4.3. Univariate Analysis of Variances

		Self-reported Review Effect			Information Credibility			Attitude Towards the Review			·ds	Purchase Intention				
	df	F	Sig.	Partial Eta ²	df	F	Sig.	Partial Eta ²	df	F	Sig.	Partial Eta ²	df	F	Sig.	Partial Eta ²
Review Valence	1	3.932	.048	.016	1	.022	.882	.000	1	.798	.373	.003	1	5.203	.023	.021
Review Format	2	1.258	.286	.010	2	.786	.457	.006	2	.169	.845	.001	2	.079	.924	.001
Product Type	1	.674	.412	.003	1	.000	.998	.000	1	.772	.380	.003	1	2.431	.120	.010
Occupation	1	.190	.663	.001	1	.272	.602	.001	1	.386	.535	.002	1	.341	.560	.001
Review Valence * Review Format	2	4.600	.011	.036	2	1.042	.354	.008	2	1.646	.195	.013	2	.517	.597	.004
Review Valence * Product Type	1	.011	.917	.000	1	.011	.917	.000	1	.064	.801	.000	1	.202	.654	.001
Review Valence * Occupation	1	.255	.614	.001	1	.743	.389	.003	1	.479	.490	.002	1	.022	.882	.000
Review Format * Product Type	2	.229	.795	.002	2	.112	.894	.001	2	.025	.975	.000	2	.346	.708	.003
Review Format * Occupation	2	.729	.484	.006	2	.427	.653	.003	2	.439	.645	.004	2	.176	.839	.001
Product Type * Occupation	1	.127	.722	.001	1	.307	.580	.001	1	.000	.992	.000	1	.722	.396	.003
Review Valence * Review Format * Product Type	2	.456	.634	.004	2	.332	.725	.003	2	.195	.823	.002	2	.339	.713	.003
Review Valence * Review Format * Occupation	1	.821	.366	.003	1	.119	.731	.000	1	.070	.792	.000	1	.169	.681	.001
Review Valence * Product Type * Occupation	1	.035	.851	.000	1	.004	.949	.000	1	.005	.944	.000	1	.041	.839	.000
Review Format * Product Type * Occupation	2	.105	.901	.001	2	.078	.925	.001	2	.026	.974	.000	2	.241	.786	.002
Review Valence * Review Format * Product Type * Occupation	1	.010	.912	.000	1	.110	.740	.000	1	.014	.906	.000	1	.016	.900	.000

4.2.1 Main effects

In Table 4.3, the results show the significance value of review valence is (F(1, 258) = 5.203, p = .023). Because the value is smaller than .05 (p< .05), the conclusion can be made that there is a main effect of review valence on consumers' purchase intention. This suggests that positive reviews lead to a higher purchase intention (M=4.74, SD=1.407) compared to negative reviews (M=3.92, SD=1.681). Therefore, H1 is confirmed. In addition, review valence is also found to have a significant effect on self-reported review effect (F(1, 258) = 3.932, p = .048). The mean score illustrates that subjects think the negative reviews (M=5.43, SD=1.351) carry more weight than the positive reviews (M=4.92, SD=1.352).

Regarding the review format, although the mean scores in Table 4.1 vary over conditions, the results of MANOVA test show there is no significant effect. Therefore, H2a, H2b, H2c are not supported. No significant effect of product type is visible in Table 4.2, thus, H4 is not confirmed by this study, either.

4.2.2 Interaction effects

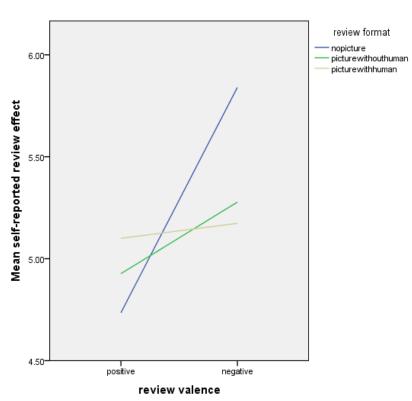
There is no evidence to support the interaction between review valence and format on purchase intention. Therefore, H3 is rejected. Nevertheless, a significant interaction effect is observed on self-reported review effect (F(2,257)=4.600, p=.011). Interestingly, as illustrated in Figure 4.1, the negative reviews with text alone is believed by subjects as the most influential reviews whereas the positive

reviews with no picture as the least effective. It is also noteworthy that the mean score of self-reported review effect increases dramatically from the positive reviews to the negative reviews in text-based format compared with other two formats.

When the message is positive, the reviews with a human element is rated the highest on self-reported review effect followed by the reviews without a human element and the reviews with only text.

Surprisingly, the ranking is completely opposite when the message is negative. Instead, the reviews with no picture carry more weight followed by the review without a human element. Not many changes are detectable on the score of the reviews with a human element between the negative condition and positive condition.

Figure 4.1. Interaction Effect of review valence and format on self-reported review effect



4.3 Overview of hypotheses

Table 4.4 summarizes the findings of each hypothesis and the detail is discussed in the next section.

Table 4.4. Overview of hypotheses

Content	Results
The positive (negative) review generates a positive (negative) effect on consumers' purchase intention.	Supported
The review presented as text and image in conjunction is more credible compared with text alone.	Not supported
The review with a human figure in the image generates a positive effect on consumers' attitude towards the review.	Not supported
The review presented as text and image in conjunction generates a higher review effect compared with text alone.	Partially supported
The positive review with image cue generates the highest purchase intention among all conditions.	Not supported
The positive (negative) review generates a larger positive (negative) impact on purchase intention for experience goods compared to search goods.	Not supported
	The positive (negative) review generates a positive (negative) effect on consumers' purchase intention. The review presented as text and image in conjunction is more credible compared with text alone. The review with a human figure in the image generates a positive effect on consumers' attitude towards the review. The review presented as text and image in conjunction generates a higher review effect compared with text alone. The positive review with image cue generates the highest purchase intention among all conditions. The positive (negative) review generates a larger positive (negative) impact on

5. DISCUSSION AND CONCLUSION

Customer reviews are believed to have power to influence customers' attitude and behaviour. As a result, previous research into the effect of different attributes of online reviews is vast but the majority of the literature is focused on the textual information. In an attempt to keep up with the pace of the constantly evolving online environment, this study is targeted to understand the factors affect consumers' perception of information credibility by involving review format and its interaction effect with review valence on purchase intention afterward.

In this section, the findings revealed in this research are further presented and described. First, the general discussion is illustrated followed by the implication in both theoretical and practical aspects. Finally, this chapter ends with the limitations of this study, the direction of future research and a conclusion.

5.1 General discussion

The result indicates there is a positive relationship between review valence and purchase intention. This finding is consistent with the previous research (Chevalier & Mayzlin, 2006; Doh & Hwang, 2009; Park & Lee, 2009a) which claim that positive reviews are beneficial to purchase behaviour. Besides that, there is an unexpected outcome showing that review valence also has a significant effect on self-reported review effect. More specifically, the result of this study verifies that the respondents consider the negative reviews carry more weight compared with the positive reviews. The major reason behind such phenomena refers to the negativity effect, also known as negative bias. The theory explains that consumers usually face tremendous risks and uncertainty during online shopping, which triggers their prevention focus (Hsu, Yu & Chang, 2017). Consequently, consumers are inclined to trust the negative messages to avoid potential loss (Zou, Yu & Hao, 2011).

Regarding the main effect of review format on information credibility, attitude towards the review and self-reported review effect, no evidence of significant effect is visible. A possible explanation could be the weak connection between images and review contents. In other words, the picture does not contain detail information as additional resource to support the review message. As mentioned in the theoretical framework, potential consumers rely on visual cues to accurately and objectively evaluate the products since the image is supposed to be diagnostic and informative. However, the picture applied in this study perhaps do not 1) provide sufficient information of the item itself 2) convey the information that is strongly consistent with the review content. Therefore, people might ignore the image due to its irrelevance.

Another plausible explanation can be attributed to the verbal superiority found by Smith (1991). She argues that in an advertising context, the way that verbal format describes the product attributes and performance is more explicit and specific while the visual format is implicit and vague which leads to confusion. In this study, people are searching information to help them spend money wisely. Perhaps, the image does not perform well in that aspect, on the contrary, it increases consumers' uncertainty about the review content which negative influences consumers' perception of the message.

Surprisingly, a significant interaction effect of review valence and review format on self-reported review effect is evident in this study. The findings unveil that review format may not work effectively alone but with review valence, the interaction effect can influence how people assess the review effect. The data

further suggest that in the positive condition, the review with images is believed to be more powerful on conveying the content of the message than a text-based review. That is to say, the visual cues can amplify the effect of positive reviews towards purchase decision. However, in the negative condition, reviews without any image is regarded as the strongest one, which is a complete converse with the expectation. A possible reason could be the different context that respondents are indulged in. As mentioned in the previous paragraph, it is easier for consumers to make an association between negative review and prevention focus. Therefore, people become more eager to acquire information about potential loss. Under such circumstances, prospective consumers might carefully scrutinize the review content including the text and image. When they consider the image does not provide strong evidence to prove the review content, they are more likely to automatically decrease the negative influence of the negative review. On the other hand, if consumers are in a positive condition where promotion focus is activated, consumers might take visual information as a peripheral cue to slightly increase the effectiveness of the positive review.

Besides review format and review valence, this research also tries to clarify the relationship between review valence and purchase intention regarding experience goods and search goods. Unfortunately, there is no interaction effect supported by this study, probably because the search and experience qualities of the two selected items are not prominent. A few research also claim that the definition of search and experience products are changing and it becomes hard to classified product features by experience and search attributes due to the advent of the internet (Weathers et al., 2007).

5.2 Theoretical contributions

This research extends the existing literature on review features by introducing the presentation format. A large amount of research has been discovered on the study of online reviews in textual information but seldom mentions about the effect of visual cues in the customer reviews (Metzger & Flanagin, 2013). Additionally, it is undeniable that the way of conveying information is advancing and diversified through the adoption of cutting-edge technology. Therefore, the purpose of this research is to take a step further by focusing on the review format and its effect on consumers' perception of the message content. In sum, this study provides a new angle of research by not limiting the online review in textual format and serves as a foundation for further exploration as well.

Previous studies have shown that images, especially with the human elements, can increase the attractiveness of the information (Lee & Shin, 2014) and enhance trust towards the content (Hassanein & Head, 2007). However, no significant effect of the review with the photo is founded in this study. Thus, the image may not work equally effective in all kinds of conditions. This conflicting outcome might lead to a further elaboration on this topic in the future studies.

Apart from that, another independent variable, review valence is found to have a great impact on purchase intention which contributes to the research done by Lee et al., (2009) where they state positive reviews generate a higher purchase intention. More importantly, the finding derived from this research also confirms that review valence has a significant effect on consumers' evaluation of review effect. According to Tsao (2014), negative reviews are less common than positive reviews in the social environment, thus the information displaying negativity is perceived more valuable, which exert a greater impact on consumers' judgement. Similarly, the result of this research indicates that consumers indeed view negative reviews as more powerful than positive ones. Therefore, from a theoretical perspective, this study adds an additional support to related literature by empirically validating that negative reviews generate a greater influence on consumers' perception of the message itself.

Finally, this study tries to investigate the moderating effect created by product type. Past study has demonstrated that the effect of review valence is stronger when the advertised product is ambiguous, that is, when the quality is hard for consumers to determine (Park & Lee, 2009). However, no evidence is detected in this study targeting Chinese consumers. This conflicting outcome might generate a further exploration in the future. Besides that, it is also notable that Chinese consumers do not think there is a prominent difference between products' search and experience quality. Hence, this paper can be used as a basis for future research regarding how consumers with different culture background perceive the nature of the product.

5.3 Practical implications

The outcome of this study provides some interesting implications in reality. First, e-commerce retailers have to pay attention to the consumer reviews. The present study has found that review valence has a strong influence on consumers purchase intention. Additionally, consumers claim they perceive the negative reviews carry more weight than the positive reviews and they indeed are more likely to be affected by negative comments. Hence, it is crucial that retailers respond immediately and appropriately to the negative reviews.

Second, e-commerce retailers can leverage review format to moderate the review effect. This study has shown that image can strength the power of the review message when the content is positive. It is an effective way to magnify the positive review in the information overload circumstances. Therefore, retailers should encourage consumers to share their positive online shopping experience with pictures, in this way, the positive review becomes more prominent. Similarly, when dealing with negative reviews, retailers might also consider suggesting audience to upload images in their comments since it might weaken the negative influence. Besides, this study also advises to give the first priority to those negative reviews in text format since consumers regard them as the message with strongest review effect, which may jeopardize the further interaction with the reviewed items.

5.4 Limitations and future research directions

There are always some limitations of the study, on the bright side, these limitations might give an inspiration for the further research.

First of all, it might be questionable to generalize the outcomes on to a larger population as the data are collected through convenience sample, which means it might result in incomparable to the general population. Additionally, this study is using a within-subjects design, meaning participants are required to face both experience goods and search goods at the same time, it might happen that the answer for the second condition is somewhat influenced by the first one. Hence, it is suggested to take such factors into consideration for future research.

Second, this study chooses an instant camera as a representative of experience goods and a backpack as search goods which is based on the definition of product quality (Nelson, 1970) and pre-test result. However, using only one product to represent one product type might cause category-confound (Lee & Shin, 2014). Furthermore, each item has its unique properties, it is possible to generate different results if using other products. Therefore, for the future study, recommendations are 1) to select several

products for each product type in order to generalize the outcomes 2) to utilize other products to test the generalizability of the presenting findings.

Last but not least, the experiment outcomes might be affected by the low connection between the photos and the review contents. The requirement of photo selection in this research is to fully and clearly present the reviewed product, as a result, the consistency between the visual cue and verbal cue is neglected. Thus, it is advised to choose the photos with high relevancy in the future study and check if the results are still the same.

5.5 Conclusion

Online reviews are considered as a strong weapon to have an impact on potential consumers' perception, attitude and behavioural intention. Therefore, it is not surprising that there is abundant research concerning different features of online reviews. However, there is not sufficient study to identify the role of review format in the e-commerce context. This study, as a consequence, tries to clarify the effect of review format on consumers' evaluation of review message by conducting an online survey targeting Chinese audience.

It can be concluded that by working with review valence, review format can contribute to influence people's perception of review effect, although their interaction effect does not have an effect on purchase intention. Moreover, this study reveals a fact that review valence is not only a determinate factor of purchase intention but also an important indicator of review effect.

Reference

Baker, M. J., & Churchill, Jr. (1977). The impact of physically attractive models on advertising evaluations. *Journal of Marketing Research*, 14, 538-555.

Charlton, G. (2015). Ecommerce consumer reviews: why you need them and how to use them. *Econsultancy*. Retrieved 1 Oct, 2017 from https://econsultancy.com/blog/9366-ecommerce-consumerreviews-why-you-need-them-and-how-to-use-them

Chatterjee, P. (2001). Online reviews: Do consumers use them? *Advances in Consumer Research*, 28(1), 129–133.

Cheung, M., Luo, C., Sia, C., & Chen, H. (2009). Credibility of electronic word-of-mouth: Informational and normative determinants of on-line consumer recommendations. *International Journal of Electronic Commerce*, *13*(4), 9-38.

Chevalier, J. A., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research*, 43, 345–354. http://dx.doi.org/10.1509/jmkr.43.3.345

CNNIC. (2017). *Statistical Report on Internet Development in China (40th)*. Retrieved from http://cnnic.cn/hlwfzyj/hlwxzbg/hlwtjbg/201708/P020170807351923262153.pdf

Cyr, D., Head, M., Larios, H., & Pan, B. (2009). Exploring human images in website design: A multimethod approach. *MIS Quarterly*, *33* (3), 539-566.

Doh, S.J., & Hwang, J.S. (2009). How consumers evaluate eWOM (electronic word-of-mouth) messages. *Cyberpsychology & Behavior, 12*(2), 193-197. https://doi.org/10.1089/cpb.2008.0109

Einwiller, S., Geissler, U., & Will, M. (2000). Engendering trust in internet businesses using elements of corporate branding. *Proceedings of the 2000 Americas Conference on Information Systems (AMCIS 2000) (Association for Information Systems, Atlanta)*, 733–739.

Filieri, R. (2016). What makes an online consumer review trustworthy? *Annals of Tourism Research, 58,* 46–64.

Gefen, D., & Straub, D. (2003). Managing user trust in B2C e-services. *E-Service Journal*, 2 (2), 7-24. http://dx.doi.org/10.2979/esj.2003.2.2.7

Goldman Sachs. (2017). *Shopping Re-imagined*. Retrieved from https://www.web2asia.com/app/download/9048628785/Download.pdf?t=1494423329

Grabner-Kraeuter, S. (2002). The role of consumers' trust in online-shopping. *Journal Of Business Ethics*, 39(1/2), 43-50. http://dx.doi.org/10.1023/a:1016323815802

Ghose, A., & Ipeirotis, P. G. (2011). Estimating the helpfulness and economic impact of product reviews: Mining text and reviewer characteristics. *IEEE Transactions on Knowledge and Data Engineering*, 23, 1498–1512.

Hennig-Thurau, T., & Walsh, G. (2003). Electronic word-of-mouth: Motives for and consequences of reading customer articulations on the internet. *International Journal of Electronic Commerce*, 8(2), 51-74.

Hovland, C., Janis, I., & Kelley, H. (1953). *Communication and persuasion: Psychological studies of opinion change*. Yale University Press: New Haven & London.

Hsu, C.L., Yu, L.C., & Chang, K.C. (2017). Exploring the effects of online customer reviews, regulatory focus, and product type on purchase intention: Perceived justice as a moderator. *Computers in Human Behavior*, 69. 335-346.

Jeon, S.Y., & Park, H.J. (2003). The influence of information characteristics on word-of-mouth effect. *J. Consumer Study, 14*, 21-44.

Jiménez, F., & Mendoza, N. (2013). Too popular to ignore: The influence of online reviews on purchase intentions of search and experience products. *Journal of Interactive Marketing*, *27*(3), 226-235. http://dx.doi.org/10.1016/j.intmar.2013.04.004

Karimi, S., & Wang, F. (2017). Online review helpfulness: Impact of reviewer profile image. *Decision Support Systems*, *96*, 39-48. http://dx.doi.org/10.1016/j.dss.2017.02.001

King, R.A., Racherla, P., & Bush, V.D. (2014). What we know and don't know about online word-of-mouth. A review and synthesis of the literature. *Journal of Interactive Marketing*, 28(3), 167–183.

Kim, M., & Lennon, S. (2008). The effects of visual and verbal information on attitudes and purchase intentions in internet shopping. *Psychology and Marketing*, 25(2), 146-178. DOI: 10.1002/mar.20204

Korfiatis, N., García-Bariocanal, E., & Sánchez-Alonso, S. (2012). Evaluating content quality and helpfulness of online product reviews: The interplay of review helpfulness vs. review content. *Electronic Commerce Research and Applications*, 11, 205–217.

Lee, E., & Shin, S. (2014). When do consumers buy online product reviews? Effects of review quality, product type, and reviewer's photo. *Computers in Human Behavior*, *31*, 356-366. http://dx.doi.org/10.1016/j.chb.2013.10.050

Lee, G., & Tussyadiah, I. (2010). Textual and visual information in eWOM: A gap between preferences in information search and diffusion. *Information Technology & Tourism*, 12(4), 351-361.

Lee, J. (2013). What makes people read an online review? The relative effects of posting time and helpfulness on review readership. *Cyberpsychology, Behavior, and Social Networking, 16*(7), 529-535. http://dx.doi.org/10.1089/cyber.2012.0417

Lee, M., Rodgers, S., & Kim, M. (2009). Effects of valence and extremity of eWOM on attitude toward the brand and website. *Journal of Current Issues and Research in Advertising*, 31(2), 1–11.

Lenzner, A., Schnotz, W., & Müller, A. (2013). The role of decorative pictures in learning. *Instructional Science*, 41 (5) ,811–831.

Li, J., Lee, A., & Liu, J. (2011). Are these reviews for real? The importance of belief and trust in reviews and word-of-mouth for web-purchases. *Service Systems and Service Management (ICSSSM), 8th International Conference*. http://dx.doi.org/10.1109/ICSSSM.2011.5959398

Lowry, P.B., Wilson, D.W., & Haig, W.L. (2014). A picture is worth a thousand words: source credibility theory applied to logo and website design for heightened credibility and consumer trust. *International Journal of Human Computer Interaction*, 30, 63–93. http://dx.doi.org/10.1080/10447318.2013.839899

Maslowska, E., Malthouse, E., & Viswanathan, V. (2017). Do customer reviews drive purchase decisions? The moderating roles of review exposure and price. *Decision Support Systems*, *98*, 1-9. http://dx.doi.org/10.1016/j.dss.2017.03.010

Metzger, M.J., & Flanagin, A.J. (2013). Credibility and trust of information in online environments: The use of cognitive heuristics. *Journal of Pragmatics*, *59*, 210-220. https://doi.org/10.1016/j.pragma.2013.07.012

McKnight, D. H. and Kacmar, C. (2006) Factors of information credibility for an Internet advice site. *Proceedings of the 39th Hawaii International Conference on System Science*.

Miranda, S., & Saunders, C. (2003). The social construction of meaning: An alternative perspective on information sharing. *Information Systems Research*, *14*(1), 87-106.

Mudambi, S., & Schuff, D. (2010). What makes a helpful online review? A study of customer reviews on Amazon.com. *Management Information Systems Quarterly, 34*(1), 185–200.

Nelson, P. (1970). Information and consumer behaviour. *Journal of Political Economy*, 78(2), 311–329.

Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising* 19, 39-52.

Park, D., & Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. *Electronic Commerce Research And Applications*, 7(4), 399-410. http://dx.doi.org/10.1016/j.elerap.2007.12.001

Park, C., & Lee, T. M. (2009a). Antecedents of online reviews' usage and purchase influence: An empirical comparison of U.S. and Korean consumers. *Journal of Interactive Marketing*, *23*(4), 332–340. http://dx.doi.org/10.1016/j.intmar.2009.07.001

Prendergast, G., Ko, D., & Yuen, S. Y. V. (2010). Online word of mouth and consumer purchase intentions. *International Journal of Advertising*, *29*(5), 687-708. http://doi.org/10.2501/S0265048710201427

Schindler, R. M., & Bickart, B. (2012). Perceived helpfulness of online consumer reviews: the role of message content and style. *Journal of Consumer Behaviour*, 11(3), 234-243.

Senecal, S., & Nantel, J. (2004). The influence of online product recommendations on consumers' online choices. *Journal of Retailing*, 80(2), 159-169. http://dx.doi.org/10.1016/j.jretai.2004.04.001

Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications.* London: John Wiley & Sons.

Smith, R.A. (1991). The effects of visual and verbal advertising information on consumers' inferences. *Journal of Advertising*, 20(4), 13-24. http://dx.doi.org//10.1080/00913367.1991.10673351

Singh, J., Irani, S., Rana, N., Dwivedi, Y., Saumya, S., & Kumar Roy, P. (2017). Predicting the "helpfulness" of online consumer reviews. *Journal of Business Research*, *70*, 346–355. http://dx.doi.org/10.1016/j.jbusres.2016.08.008

Tsao, W. (2014). Which type of online review is more persuasive? The influence of consumer reviews and critic ratings on moviegoers. *Electronic Commerce Research*, *14*(4), 559-583. http://dx.doi.org/10.1007/s10660-014-9160-5

Wathen, C. N., & Burkell, J. (2002). Believe it or not: Factors influencing credibility on the Web. *Journal of the American Society for Information Science and Technology*, 53(2), 134–144.

Weathers, D., Sharma, S., & Wood, S.L. (2007). Effects of online communication practices on consumer perceptions of performance uncertainty for search and experience goods. *Journal of Retailing*, 83(4), 393-401. http://dx.doi.org/10.1016/j.jretai.2007.03.009

Wood, S. L., & Lynch, J.G. (2002). Prior knowledge and complacency in new product learning. *Journal of Consumer Research*, 29(3), 416–426.

Zou, P., Yu, B., & Hao, Y. (2011). Does the valence of online consumer reviews matter for consumer decision making? The moderating role of consumer expertise. *Journal of Computers*, *6*(3), 484-488.

Appendix A

瓜油

Experiment stimuli -

experience goods x negative review x no picture



Translation of online reviews:

- 1. It's not as good as advertised, average performance. The camera is stylish and easy to carry.
- 2. Manipulated one: Experience goods x Negative Not good. The image resolution is low, even worse in snapshots. The photo quality is way dissatisfying when capturing the object in hundreds of meters away by using landscape mode. Now I can only use it as an accessory when taking photos. There are many functions, kind of complicated. Not worth it.
- 3. The quality of the image is average, sometimes it is blurring. I guess I need some time to figure out how it works.
- 4. The sound is a bit loud when it works and the image is not clear. Only one photo out of three can be satisfying. I feel kind of disappointed.
- 5. The camera looks awesome; night mode offers a clear image resolution. The photo gives you an artistic feeling. Nice.

experience goods x negative review x pure product display



60 C** . *

不好,相机成像不太清晰,抓拍效果就更差了。用 风景模式几百米外的画质模糊不行,现在就当道具用 用。功能超多,略复杂。感觉不值。



₩ 新**爱 ★ ★ ★

成像一般,有时会模糊,估计操作上还得研究一段 时间,就那个样子吧。

🚧 t**5 🖈

出片儿的时候声音略大,显像有偏差,三張废两張 也沒誰了,买完还是有点小后悔吧。

家**9 ****

相机看着挺高大上,夜景拍的挺清楚的,拍出来的照片挺文艺,总体来说不错。



experience goods x negative review x human figure



60 C** \ *

不好,相机成像不太清晰,抓拍效果就更差了,用 风景模式几百米外的画质模糊不行,现在就当道具用 用。功能超多,略复杂。感觉不值。



₩ 新**爱 ★★★

成像一般,有时会模糊,估计操作上还得研究一段 时间,就那个样子吧。

🚧 t**5 🛊

出片儿的时候声音略大,显像有偏差,三張废两張 也沒誰了,买完还是有点小后悔吧。

◎ 家**9 ★★★★

相机看着挺高大上,夜景拍的挺清楚的,拍出来的照 片挺文艺,总体来说不错。



experience goods x positive review x no picture



Translation of online reviews:

Other four pieces of online review are the same, please refer to the previous page.

Manipulated one: Experience goods x Positive I love it. The camera offers a high and clear image resolution, even with snapshots. The image quality is very satisfying when capturing the object in hundreds of meters away by using landscape mode. There are many different functions but it is quite easy to use. Perfect.

experience goods x positive review x pure product display



C** . * * * * *

稀饭。成像清晰,抓拍也能很清楚,用了风景模式 几百米外的画质还是很满意。相机的功能挺强大, 用处多多,操作起来却挺简单的,完美。



100 新**爱 ***

成像一般,有时会模糊,估计操作上还得研究一段 时间,就那个样子吧。

👳 t**5 * = = = =

出片儿的时候声音略大,显像有偏差,三張废两張 也沒誰了,买完还是有点小后悔吧。

家**9 ****

相机看着挺高大上, 夜景拍的挺清楚的, 拍出来的照片挺文艺, 总体来说不错。

	0	公	to A Nath in	立即购买
店铺	客報	松雅		-

experience goods x positive review x human figure



60 C** . * * * * *

稀饭。成像清晰,抓拍也能很清楚,用了风景模式 几百米外的画质还是很满意。相机的功能挺强大, 用处多多,操作起来却挺简单的,完美。



5 新**爱 ★★★

成像一般,有时会模糊,估计操作上还得研究一段 时间,就那个样子吧。

€ t**5 *

出片儿的时候声音略大,显像有偏差,三張废两張 也沒雜了,买完还是有点小后悔吧。

家**9 *****

相机看着挺高大上, 夜景拍的挺清楚的, 拍出来的照 片挺文艺, 总体来说不错。



search goods x negative review x no picture



Translation of online reviews:

- 1. Just soso, the fabric is quite thin. But it depends on you. I think it is ok.
- 2. Manipulated one: Search goods x Negative Don't like the color although it is ok when taking photos with it. But it is different from the color in the product introduction. The bag is not well made. The fabric is very thin, not a very satisfying tactile impression. The quality is below my expectation and it's so expensive.
- 3. The fabric feels very rough and looks cheap, but the bag is light and sometimes you feel like carrying nothing. That's it.
- 4. The bag is very normal, not worth the price. It's ugly when you do not put enough stuff into the bag. Easy to get dirty, the fabric is rough.
- 5. This color looks aesthetic and vintage. Mix and match style. The quality of the bag is very good, waterproof. Love it.

search goods x negative review x pure product display



一般吧感觉,这个布料还蛮薄的哦,就看你能不能 接受了,我记得还行吧。



60 新**爱 ***

布料感觉很硬,看起来有些廉价,但包很轻,感觉 像没有背东西,无功无过吧。

e t**5 ★

报一般,不值这个价,包不装满东西时恨难看,垮 垮的,而且非常容易脏又硬。

家**9 ****

这个颜色文艺又复古。确实算是通勤且百搭。包包的质量很好,防水的,大爱。



search goods x negative review x human figure



69 C** \ * * * * *

不喜欢这颜色,虽然拍照片还行,但和介绍上的是 有明显色差。做工有点粗糙,手感不好,材质略显 单薄,感觉质量有点差呀,还卖那么贵。



★ ★ ★ ★

布料感觉很硬,看起来有些廉价,但包很轻,感觉 像没有背东西,无功无过吧。

很一般,不值这个价,包不装满东西时很难看,垮 垮的,而且非常容易脏又硬。

🤓 家**9 * * * * *

这个颜色文艺又复古。确实算是通勤且百搭。包包 的质量很好,防水的,大爱。



search goods x negative review x no picture



Translation of online reviews:

Other four pieces of online review are the same, please refer to the previous page.

Manipulated one: Search goods x Positive
This color is super. I'm going to use the bag for a trip.
It can carry a lot of things, very practical. Although
it's a little expensive, I like it. The bag is of fine
workmanship. The fabric is durable and you can feel
the quality when touching it. Generally speaking, it's
excellent.

search goods x positive review x pure product display



一般吧感觉,这个布料还蛮薄的哦,就看你能不能 接受了,我记得还行吧。

60 C** . * * * * *

这颜色超喜欢,背着准备出去旅游。能装很多东西, 很实用。虽然有点小贵,但我喜欢,包包做工精细, 料子硬硬的有质感。总得来说很正。



布料感觉很硬,看起来有些廉价,但包很轻,感觉 像没有背东西,无功无过吧。

6 t**5 ★

復一般,不值这个价,包不装满东西时很难看,垮 垮的,而且非常容易脏又硬。

家**9 ****

这个颜色文艺又复古。确实算是通勤且百搭。包包 的质量很好,防水的,大爱。







加入购物

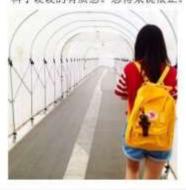
立即购买

search goods x positive review x human figure





这颜色超喜欢, 背着准备出去旅游。能装很多东西, 很实用。虽然有点小贵, 但我喜欢, 包包做工精细, 料子硬硬的有质感。总得来说很正。



∞ 新**爱 ★★★

布料感觉很硬,看起来有些廉价,但包很轻,感觉 像没有背东西,无功无过吧。

🚧 t**5 🛊

很一般,不值这个价,包不装满东西时很难看,垮 垮的,而且非常容易脏又硬。

家**9 ****

这个颜色文艺又复古。确实算是通勤且百搭。包包 的质量很好,防水的,大爱。









加入胸物车

立即购买

Appendix B

Questionnaire (English Version)

Dear participants,

Thank you for your willingness to participate in this research regarding purchase intention under online environment. The results of this study are solely for academic purposes. The data will be strictly protected and the recipient can stay anonymous. Please take a good look at the information provided below and then complete the questionnaire accordingly. You are of great help for the project and your voluntary participation is highly appreciated.

Scenario One: Assume that a close friend of yours is about to have a birthday party, thus you are thinking of buying a decent gift with a price around RMB 1000. After a full consideration, you decide to buy an instant camera. Now, imagine you are searching for product information on an E-commerce site. You can use all the information on the next several pages to help you make a decision. Please read them through and then answer the following questions.







🚧 C** 、 * * * * *

不好,相机成像不太清晰,抓拍效果就更差了,用 风景模式几百米外的画质模糊不行,现在就当道具用 用。功能超多,略复杂。感觉不值。



👺 新**爱 🔺 ★ 🛊 👚

t**5 *

☞ 家**9 ★★★★

成像一般,有时会模糊,估计操作上还得研究一段 时间,就那个样子吧。

出片儿的时候声音略大,显像有偏差,三張废两張

也沒誰了,买完还是有点小后悔吧。

相机看着挺高大上, 夜景拍的挺清楚的, 拍出来的照 片挺文艺, 总体来说不错。

日 ○ ☆ 加入胸物车 立即购买 店舗 客服 收藏

The questions below ask about your purchase intentions towards the product you just reviewed. Please select the option that best describes your feelings and opinions about each question. (1=totally disagree, 7=totally agree)

- After reading all the information, it makes me desire to buy the product
- I will consider buying the product after I check all the overall information
- I intend to try the product presented in the previous information
- In the future, I intend to seek out the product presented in the previous information
- In the future, I intend to buy the product presented in the previous information

Scenario Two: Assume that another close friend of yours is also about to have a birthday party, thus you are thinking of buying a decent gift with a price around RMB 1000. After a full consideration, you decide to buy a backpack. Now, imagine you are searching for product information on an E-commerce site. You can use all the information on the next several pages to help you make a decision. Please read them through and then answer the following questions.





环保面料;内置气泡坐垫,外出时可以在岩石草地使用 洗涤说明: 18 197 众 255 不可使用熨斗 不可干法 手法 不可重白 透气指数 通气 不透气 适中 防凌水 不防水

防水指数 防水 便携指数 厚重 适中 轻便 耐磨指数 不耐磨

功期说明: 1.可手拎设计 2.大容量主装 3.反光安全LOGO 4.正面拉链收纳袋 5.侧袋可放雨伞









一般吧感觉,这个布料还蛮薄的哦,就看你能不能 接受了,我记得还行吧。

PO C** \

不喜欢这颜色, 虽然拍照片还行, 但和介绍上的是 有明显色差。做工有点粗糙,手感不好,材质略显 单薄,感觉质量有点差呀,还卖那么贵。



₩ 新**爱 ★★★

布料感觉很硬,看起来有些廉价,但包很轻,感觉 像没有背东西, 无功无过吧。

t**5 *

很一般,不值这个价,包不装满东西时很难看,垮 垮的,而且非常容易脏又硬。

od 家**9 * * * * *

这个颜色文艺又复古。确实算是通勤且百搭。包包 的质量很好, 防水的, 大爱。







加入胸物车

立即购买

The questions below ask about your purchase intentions towards the product you just reviewed. Please select the option that best describes your feelings and opinions about each question. (1=totally disagree; 7=totally agree)

- After reading all the information, it makes me desire to buy the product
- I will consider buying the product after I check all the overall information
- I intend to try the product presented in the previous information
- In the future, I intend to seek out the product presented in the previous information
- In the future, I intend to buy the product presented in the previous information

Thank you for filling in the above two sections, now please complete the third part of the survey.

In the first scenario (instant camera), the online review as below is presented. Please select the option that best describes your feelings and opinions regarding the review. (1=totally disagree; 7=totally agree)

- I pay a close attention to this review when making a purchase decision.
- I will refer to this review in my purchase decision.
- This review crucially affects my purchase decision.

As per this online review, how would you rate its attributes regarding

- Attractive
- Appealing
- Interesting
- Rational
- Reliable
- Consistent

To what extent do you agree with the below statements (1=totally disagree; 7=totally agree) I think this review is convincing.

I think this review is credible.

I think this review is accurate.

In the second scenario (backpack), the online review as below is presented. Please select the option that best describes your feelings and opinions regarding the review. (1=totally disagree; 7=totally agree)

- I pay a close attention to this review when making a purchase decision.
- I will refer to this review in my purchase decision.
- This review crucially affects my purchase decision.

As per this online review, how would you rate its attributes regarding

- Attractive
- Appealing
- Interesting
- Rational
- Reliable
- Consistent

To what extent do you agree with the below statements (1=totally disagree; 7=totally agree) I think this review is convincing. I think this review is credible. I think this review is accurate.

Thank you for your cooperation. Now, please move on to the last part of the questionnaire regarding your personal information.

- What's your age?
- What's your gender?
- Current main occupation (Student / Employed / Self-employed / Unemployed)