EFFECT OF E-WOM MESSAGE OF OPINION LEADERS ON
PURCHASE INTENTION OF FEMALE CONSUMERS IN
CHINA - CASE OF DOUYIN (TIK TOK)

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EFFECT OF E-WOM CREDIBILITY OF OPINION LEADERS ON THE PURCHASE INTENTION OF FEMALE CONSUMERS IN CHINA – CASE OF DOUYIN (TIK TOK)

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Abstract

With the development of internet and social media, more and more opinion leaders expressed their reviews, recommendations and other forms of electronic word-of-mouth (e-WOM) about the product or brand in social media platforms. These e-WOMs can influence the purchase decision of consumers. Douyin is a short-video social media app and is fast-growing in China where opinion leaders' express theirs reviews and recommendations about a product or a brand which will influence the purchase decision-making process of Chinese consumers.

The main purpose of this dissertation is to study the relation between e-WOM message by opinion leaders and the purchase intention of Chinese female consumers, exploring the role of expertise, trustworthiness, e-WOM credibility, product/brand perceived value and attitude. In order to achieve the objectives, a quantitative research was used to test the research hypotheses. Through the online survey, 215 effective questionnaires have been collected and used to process the data analysis.

The results revealed that expertise and trustworthiness of opinion leaders have a positive impact on the e-WOM credibility. The e-WOM credibility can influence positively the product/brand perceived value and attitude of consumer. The expertise of opinion leaders, product/brand perceived value and attitude has a positive impact on the purchase intention of Chinese female consumers. The Chinese female consumers put more emphasis on expertise of the message sender. The credible message can shape the perceived value and attitude about product/brand of Chinese female consumers, and thus have an effect on purchase intention.

Keywords: Social media; Opinion leaders; E-WOM credibility; product/brand perceived value; Product/brand attitude; Purchase Intention

Resumo

Com o desenvolvimento de Internet e social media, há cada vez mais líderes de opinião a expressar as suas opiniões, recomendações e outras formas de passa palavra eletrónica (e-WOM) sobre produtos ou marcas na plataforma de social media. Os seus e-WOMs têm uma influência no processo de decisão de compra do consumidor. Douyin é uma plataforma de social media para criação de vídeos curtos e é popular na China, onde os líderes de opinião expressam as suas opiniões e recomendações sobre o produto ou a marca, o que tem um papel importante da influência a intenção de compra dos consumidores chineses.

O objetivo principal da dissertação é estudar a relação entre e-WOM de líderes de opinião e a intenção de compra das consumidores femininas chinesas, explorando o efeito da especialidade, confiança, credibilidade do emissor de e-WOM, valor percebido e atitude sobre o produto/marca. Para realizar esse objetivo, uma pesquisa quantitativa foi utilizada para testar as hipóteses de investigação. Através de distribuição online, 215 questionários válidos foram recolhidos para análise dos dados. Os resultados revelaram que a especialidade e confiabilidade dos líderes de opinião têm um impacto positivo na credibilidade de e-WOM. A credibilidade do emissor de e-WOM pode influenciar positivamente o valor percebido e atitude em relação ao produto ou marca dado pelo consumidor. A especialidade, valor percebido e atitude em relação ao produto ou marca tem um impacto positivo na intenção de compra das consumidoras femininas chinesas. Este resultado indica que as consumidoras femininas chinesas prestam atenção à especialidade do emissor de mensagens. A mensagem do líder de opinião credível pode mudar o valor percebido e atitude em relação ao produto ou marca dada pelo consumidor, e portanto, ter um impacto na intenção de compra.

Palavras-chave: Social media; Líderes de opinião; Credibilidade de E-WOM; Valor percebido sobre produto-/marca; Atitude sobre produto-/marca; Intenção de compra

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1. Introduction

1.1 Background

With the arrival of the digital era and the development of Internet technology, Internet has changed the way of communication, information acquisition and transaction between people. In China, with the popularity of the Internet, the scale of online users has grown (Ding, 2019). According to the *43rd China's Internet Development Report* (China Internet Network Information Center, 2019, pp.25-26)*, by the end of December 2018, the Internet penetration rate in China is 59.6% and the number of Chinese online users is 829 million. China's Internet development provides a favorable Internet environment for social media and social networking development (Deng, Wang, & Zhou, 2015). Social media are media for social connections and interactive dialogues between users (Sajid, 2016). "online social networks are online communities where people socialize or exchange information and opinions" (Kotler & Armstrong, 2015, p.172). Virtual communities of social networking and social media provide more platforms for users to share ideas (Turcotte, York, Irving, Scholl & Pingree, 2015). On the one hand, social media has changed the consumer's habit to obtain information, from passively accepting information disseminated by enterprises to actively seeking effective information (Deng, Wang & Zhou, 2015). On the other hand, consumers will be influenced by other people in the social media platforms when they make purchasing decisions (Deng et al. 2015; Forbes, 2013).

The strong purchase power of women contributes to the economic growth (Gashi, 2015). According to the *2017 Chinese Women's Consumption Analysis Report*: "The total value of Chinese female consumers in the mainland market exceeds 2.5 trillion Renminbi ($362 billion) and is expected to reach 4.5 trillion Renminbi ($652 billion) by 2019" ("Chinese Women's", 2017, p.2). Chinese female consumers play a significant role in boosting China's consumer market in recent years (Xin, 2017). In China, 85% family consumption's decision is made by women (Xuan, 2016). Women play a leading role on consumption decisions (Chen, 2017).

Douyin, ("Tiktok" in the international version) is a short video media app, which allows users to create and share short video with music background (Mossy, 2018). According to the *2018 Research*

Report of Douyin, there are about 300 million active Douyin users in a month in China, among which, male users accounted for 48.03%, and female users accounted for 51.97%. The research also shows in 2018, the overseas version of Douyin—TikTok is at the top position of APPLE STORE short video app list, exceeding Facebook, Youtube and Instagram in the first quarter, with 500 million active users in the world in a month (Miaozhen, 2018).

Social media provides a new channel for electronic word-of-mouth (e-WOM) where users can interact with others (Teng, Khong, Chong, & Lin, 2017). The e-WOM source have an impact on the consumer's evaluation about the content of e-WOM (Le, Dobele, & Robinson, 2018). Opinion leaders are active on social media platforms and are the main source of e-WOM message. Usually, they are focus on a certain field and have the right to speak as an "expert", attracting the attention of their followers due to their reputation and high quality content (Haron, Johar & Ramli, 2016). 77% of Chinese female consumers have purchased products because of opinion leader's review and recommendation. Key opinion leader (KOL) is influential in decision-making process of Chinese female consumers (An, Zheng & Zeng, 2015). With de explosive development of Douyin in China, "opinion leaders marketing" is used by brand and enterprises (Xu, 2019).

1.2 Research Objective

This dissertation intends to understand the impact of e-WOM message made by opinion leaders on the purchase intention of Chinese female consumers. In addition to this, the dissertation also investigates the role of perceived value and attitude towards product/brand, based on the previous researches and the Stimulus-Organism-Response (S-O-R) model. More specifically, the main objectives of this dissertation are:

(1) To measure the effect of expertise and trustworthiness on e-WOM credibility;

(2) To investigate the relationship between expertise, trustworthiness, e-WOM credibility and purchase intention of Chinese female consumers;

(3) To study the effect of product/brand perceived value and attitude on purchase intention of Chinese female consumers.

1.3 Relevance

With the rapid development of internet and popularity of social media, the platforms like Wechat, Weibo and DOUYIN provide virtual communities for potential consumers to share their experience. Consumers also receive the reviews about products or brands from online opinion leaders in China. The study by Le et al. (2018) confirmed the important role of opinion leaders to transmit information to consumers, due to its strong impact on the information quality, which can shape the consumer's evaluation about e-WOM message. The new online forms of consumer-to-consumer and business-to-consumer dialog have big implications for marketers (Kotler, & Armstrong, 2015).

From a theoretical perspective, previous study demonstrated that online e-WOM has a direct impact on consumer's purchase intention (El-Baz, Elseidi, & El-Maniaway, 2018, Kudeshia, & Kumar, 2017). The present dissertation focuses on the social media platforms, DOUYIN, and provides a sight into the Chinese female consumer's purchase intention under the influence of e-WOM message made by opinion leader. In addition, this dissertation makes a contribution to a better understanding about the effects of consumer's perceived value and attitude towards product/brand on the relation of e-WOM credibility and purchase intention of Chinese female consumers.

From a practical perspective, Weibo and Wechat are usually selected as social media platforms to analyze. However, In the recent years, with the popularity of Douyin app, more and more brand and enterprises launch marketing plan and cooperate with opinion leaders in this platforms to attract consumers. It is important for enterprises to gain knowledge about the e-WOM message carried out by opinion leaders and it effect on consumer's purchase intention.

1.4 Structure

This study consists of six parts: Introduction, Literature review, Theoretical model and research hypotheses, Methodology, Results analyses, and Conclusions and limitations. The introduction chapter presents the background and theme. This chapter also indicates the objective and research problem, the relevance and the structure of study. The literature review chapter enumerates a set of concepts and definitions, such as opinion leaders, e-WOM and e-WOM credibility, product/brand perceived

value, attitude and purchase intention. The next chapter presents the conceptual model and research hypotheses of the dissertation. The methodology chapter presents the research method, the sample, the survey type and questionnaire. The analysis chapter presents analyses and discussions of the results. The conclusion chapter presents and enumerates the key findings, implications, limitations and the suggestions for future research.

2. Literature Review

2.1 Opinion Leaders

2.1.1 Concept of Opinion Leaders

The concept of opinion leaders is derived from the theory of communication. Lazarsfeld, Berelson, and Gaudet (1944) first proposed this definition in the study of two-step flow theory, which states that mass media does not directly flow to people, instead, first reaches the opinion leaders, and from them pass on wider population in society. Opinion leaders are defined as persons engaged and knowledgeable, a hub between the mass media and the general public (Lazarsfeld, Berelson, & Gaudet (1944).

Then Katz (1957) developed this concept and defined that the opinion leaders and the people whom they influence are in the similar groups. Opinion leaders are perceived to be more interested in the particular sphere in which they are influential. Besides, the interpersonal relation between opinion leaders and general public is a channel of communication, through which can influence people's decision-making, and these effects are greater than the traditional media.

Subsequently, with de development of investigation on opinion leaders, scholars have defined opinion leaders from different emphasis and perspectives. This study generalizes the definition of opinion leaders taking into account three points of views: "Who transmits information", "How to transmit information" and "What kind of information is transmitted": (1) Opinion leaders are in the center and are the most influential group in social systems. They are the source of information and recommendations about products. And those electronic words of mouth (e-WOM) have an impact on

the attitudes or behaviors of their opinion followers. (Rogers, 1983; Lazarsfeld et al. 1944; Haron et al. 2016). (2) Opinion leaders transmit information under communication channels, usually through frequent and informal discussions in social networks. (Turcotte, Irving, Scholl & Pingree, 2015; Rogers, E, 1983). (3) Opinion leaders are viewed as information sources of value and trustworthy (Li, Chen, Huang, Xie, & Cai 2018). Opinion followers regards the information as more credible and persuasive than mass media or marketing campaign. (Turcotte, et al. 2015; Solomon & Michael, 2017).

2.1.2 Online Opinion Leaders

In the digital era, especially with the development of Web 3.0, opinion leaders have more platforms to disseminate information. At the same time, internet users can gather the information through these platforms. Opinion leaders go through web platforms, for example, blogs, social networks, forums, virtual communities, to share their own recommendations in specific fields (Nunes, Ferreira, Freitas & Ramos, 2018). As the same to the traditional opinion leaders, the online opinion leaders provide recommendations about product/brand for consumers, but the place where they express their recommendations change to expand to online environment (Haron et al. 2016). Their influence is no longer limited to the people around them in society, but extends to unlimited Internet users (Nunes et al. 2018).

2.2 Electronic Word-of-Mouth (e-WOM)

2.2.1 Concept of Electronic Word-of-Mouth (e-WOM)

The electronic word-of-mouth (e-WOM) and its influence on consumer's purchase intention is a hot topic for researchers and scholars in the marketing domain (Erkan & Evans, 2016; Kudeshia & Kumar, 2017; Teng, Wei, Wei & Yee, 2014). The form of word-of-mouth (WOM) can be mainly divided into traditional WOM (face-to-face, offline) and e-WOM (online). As the definition made by Solomon & Michael (2017, p.422), "Word-of-mouth (WOM) is product information that individuals transmit to other individuals." With the growth of social media, online platforms have become a principal channel of communication for widespread and rapid dissemination of e-WOM (Zhou, McCormick, Blazquez, &

Barnes, 2019). Jeong & Koo (2015) also suggest that e-WOM is an online communication form evolved from traditional WOM, which occurs in the computer-mediated environment. E-WOM breaks through the geographical and sociocultural boundaries, which makes the spread of news faster and free, so that information can be obtained by information seekers anywhere and at any time (Sahelices-Pinto, & Rodríguez-Santos, 2014).

2.2.2 E-WOM Credibility

"E-WOM credibility is defined as the extent to which one perceives a recommendation/ review as believable, true or factual" (Cheung, Luo, Sia, & Chen, 2009, p.12). While the traditional WOM occurs in a face-to-face manner which is between the information sender and receiver, the e-WOM occurs in an indirect public communication environment with weak social ties (Chu, Lien, & Cao, 2018). In the social media context and in the environment of virtual communities, when information seekers face abundant quantity of online reviews when they seek information about products or services, the mass of information can be risky for information seekers. Therefore, the e-WOM message can help them reduce the potential risk during the decision-making process (Hussain, Ahmed, Jafar, Rabnawaz, & Jianzhou, 2017). The e-WOM credibility has a positive influence on consumer's attitude on the e-WOM information on social media (Erkan, & Evans, 2016). Leaning upon the e-WOM credibility, consumer will treat the e-WOM as usefulness and thus influence the adoption of e-WOM.

2.3 Product/brand Perceived Value

There are different understandings about perceived value in the academic circles. From the perspective of comparison, perceived value was defined by Zeithaml (1988) as consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given. From the perspective of context of consumer value, Sweeney and Soutar (2001) treated the perceived value as a multi-dimensional construct. They distinguished the perceived value as four dimensions: emotional value, social value, quality value and price value (Sweeney & Soutar, 2001). Also, this concept has been described as the consumer's evaluation of the difference between the benefits and the costs of relative products/services (Kotler, & Armstrong, 2015).

Consumers will consider the product/brand more valuable when their expectations are satisfied by this product/brand. When the consumer's evaluation of value is positive, the consumer believes that value is greater than offering (Hong, Lin, & Hsieh, 2017). In this dissertation, the author treats the discussion by Zeithaml as the definition of perceived value, which is the "trade-off" of what is given and received by consumer. Also, the author combines the four dimensions of the construct proposed by Sweeney and Soutar to investigate the consumer's perceived value.

2.4 Product/brand Attitude

"Attitude describes a person's relatively consistent evaluations, feelings, and tendencies toward an object or idea" (Kotler, & Armstrong, 2015, p.181). Luo and Zhong (2015) pointed out that the consumer's attitude results of comprehensive evaluation about product or brand attributes. Spears and Singh (2004, p.55) defined attitude toward brand as "individual's evaluation of the brand that presumably energizes behavior". According to Ajzen and Fishbein (1977), attitude is one factor which is used to predict individual's behavior.

2.5 Purchase Intention

Kotler and Armstrong (2015) suggest that in the alternative evaluation stage, consumers rank product or brand and form purchase intention. Spears and Singh (2004, p.56) defined purchase intention as "individual's conscious plan to make an effort to purchase a brand". The purchase intention is considered to be closely related to the purchase behavior, which refers to the possibility of buying a certain product or service. The consumer's purchase intention is one factor for forecasting theirs actions and can help companies make marketing programs (Morwitz, 2014).

2.6 The Interrelationship Among Variables

2.6.1 The Effect of Source Expertise and Trustworthiness on E-WOM Credibility

Previous studies have mentioned that the higher credibility the information source is, the higher is the chance that the information receivers will adopt the information (Le et al. 2018; Zeng, & Seock,

2019). Source credibility plays an important role in the evaluation of e-WOM (Teng, Khong, Chong, & Lin, 2017; Sohaib, & Akram, 2018). The study by Teng, Wei, Wei, and Yee (2014) suggest that in the context of social media, source credibility is an influential factor of the e-WOM acceptance. Leaning upon the source credibility, the information receivers can distinguish and determine the credibility of online reviews (Teng et al. 2017; Chih, Wang, Hsu, & Huang, 2013).

Source expertise and trustworthiness are two factors which has an impact on e-WOM credibility (Fang, 2014; Shamhuyenhanzva et al. 2016). Expertise refers to the communicators' professional knowledge about products or services (Teng et al. 2014). Expertise contributes to form the perception of information quality and finally, determines the acceptance of information by information receivers (Yi, Yoon, Davis, & Lee, 2013; Ismagilova et al. 2019). Previous studies demonstrated that the source expertise has a positive effect on the perceived of e-WOM credibility (Ismagilova, et al. 2019).

Trustworthiness refers to the sincerity degree and confidence level that the information receiver has towards the source (Teng et al, 2014). Previous studies found that the source trustworthiness have a direct positive impact on the perceived of e-WOM credibility (Shamhuyenhanzva, van Tonder, Roberts-Lombard, & Hemsworth, 2016;). The study by Shamhuyenhanzva et al. (2016) provides an insight into the significance of source trustworthiness, which can increase the perception of the e-WOM credibility.

Opinion leaders play an important role in delivering e-WOM to others (Zhou, McCormick, Blazquez, & Barnes, 2019). The e-WOM made by opinion leaders can engage consumer's pre- and post-purchase behaviors (Nunes et al. 2018; Zhou et al. 2019). Lazarsfeld et al. (1944) believes that one of the characteristics of opinion leaders is knowledgeable, which is also mentioned in the research by Li, Chen, Huang, Xie and Cai (2018). Li et al. (2018) state that due to the professional knowledge and enduring involvement about products or services, opinion leaders are perceived to be acquainted about the attributes of products, ex. price, performance, quality, etc. A study by Le, Dobele and Robinson (2018) suggests that opinion leaders have a positive effect for the source expertise of e-WOM. Opinion leaders are perceived as more credible and reliable by information receivers, so that their recommendations can help consumers evaluate the products information (Le et al. 2018). Based on the discussion above, the following hypotheses are proposed:

H1a: The expertise of opinion leaders has a positive impact on e-WOM credibility.

H1b: The trustworthiness of opinion leaders has a positive impact on e-WOM credibility.

2.6.2 The effect of e-WOM credibility on purchase intention

Browsing the online reviews is helpful for consumers because the reviews make them more confident in the decision-making process (Lin & Chen, 2013). E-WOM is an important communication tools, which can shape the buying desires of the information receivers (Elseidi & El-Baz, 2016; Kudeshia & Kumar, 2017). It was found that source expertise and trustworthiness significantly and positively influence the purchase intention in the study by Ismagilova et al. (2019). Besides the source credibility, several studies have examined the interrelationship between e-WOM credibility and the purchase intention (Bataineh, 2015; Fan, & Miao, 2012; Yan, Wu, Zhou, & Zhang, 2018). Yan et al. (2018) found that the perceived credibility of e-WOM have a positive influence on purchase intention. Bataineh (2015) demonstrated that the e-WOM credibility has a significant and positive impact on purchase intention. Also, the study by Fan and Miao (2012) showed that the e-WOM credibility will influence the acceptance of e-WOM, thus, have a positively impact on purchase intention. This study also demonstrated that the female consumers are more likely to use credible e-WOM during de purchase-decision process than male customers.

This dissertation is intended to determine the association of expertise, trustworthiness, e-WOM credibility and the female consumer's purchase intention in China. Thus, the following hypothesis is documented as:

H2: Expertise has a positive effect on female consumer's purchase intention in China.

H3: Trustworthiness has a positive effect on female consumer's purchase intention in China.

H4: E-WOM credibility has a positive effect on female consumer's purchase intention in China.

2.6.3 The Role of Product/brand Perceived Value and Product/brand Attitude

The stimulus-response model comprises two components: stimulus and response (Kotler & Armstrong, 2015). Mehrabian and Russell (1974) developed this model as stimulus-organism-response (S-O-R model). The model holds that the stimulus of the external environment affects individual's

internal experiences (organism), which can finally evoke individual's response in the form of approach or avoidance behavior. Initially, the S-O-R model is used in the physical store's environment. But subsequently, it has been proved useful in the e-environment and e-service scape (Kühn & Petzer, 2018; Wu, Quyen, & Rivas, 2017). In social commerce context, website content, network and interaction characteristics can be used as the stimulus factors. Organism refers to the individual's internal cognitions and emotions state, such as attitude, value perception, social or relational oriented perception and affection. Response includes factors like search, evaluation and purchase intention and purchase behavior (Eroglu, Machleit, & Davis, 2001; Liu, Luo, & Cao, 2018). The S-O-R model is used as a paradigm for several studies to explore the consumer behavior. For example, Liu, Bao and Zheng (2019) explored the consumer's purchase intention by investigate the effects of argument quality of consumer-generated contents on the trust. Lee and Yun (2015) also applied this model to explore the influence of organic food attributes and cognitive and affective attitude on purchase intention.

The studies have demonstrated the practicability of S-O-R model to analyse individual's purchase intention evoked by some stimuli. In this dissertation, the consumer's product/brand perceived value and the attitude are proposed to be the variables that have effect on the consumer's purchase intention. It can be described as: the e-WOM credibility (stimulus) has an impact on consumer's purchase intention (approach response) via both product/brand perceived value and the attitude (organism).

1). E-WOM credibility—Product/brand perceived value—Purchase intention

A study by Liang, Choi and Joppe (2017) demonstrated that the e-WOM is related to perceived value. In the context of online booking, when product/service is hard to evaluation, the e-WOM can increase the consumer's perceived value of Airbnb. The e-WOM which can bring credible information about product can help consumers to build perceived value (Wang, J.-J., Wang, L.-Y., & Wang, M.-M, 2018). The significant relationship of perceived value and purchase intention has been documented by scholars (Wang & Tsai, 2014; Lien, Wen, Huang, & Wu, 2015;). Wang & Tsai (2014) found that in the context of investment, perceived value of investors has a significantly positive influence on funds purchase intention. Lien et al. (2015) demonstrated that in the context of online hotel booking, the perceived value is the determinant factor of purchase intention: the consumer will be more likely to

book the hotel if they receive satisfactory value from hotel. Also, the four dimensions (emotional, social, quality value and price) are demonstrated as reliable and valid in the pre-purchase situation (Sweeney & Soutar, 2001). Thus, the author proposes the following hypothesis:

H5: The e-WOM credibility has a positive impact effect on perceived value about product/brand on female consumer's purchase intention in China.

H6: The perceived value about product/brand has a positive effect on female consumer's purchase intention in China.

2). E-WOM credibility—Attitude towards product/brand—Purchase intention

Kudeshia and Kumar (2017) indicated that the positive e-WOM can shape the consumer's brand attitude. Elseidi and El-Baz (2016) found that the e-WOM with experienced source can bring positive change in consumer attitude towards the brand.

The Theory of Reasoned Action (TRA) model, developed by Ajzen and Fishbein (1977), explained the relationship of attitude and behavior. The TRA model suggests that a person's attitude will affect his behavioral intention. Besides, the final behavior is determined by his behavioral intention. Previous studies have documented the attitude towards brand will affect the consumer's purchase intention (Abzari, Ghassemi, & Vosta, 2014; Mohd, 2016;). The study by Abzari, Ghassemi, & Vosta, (2014) revealed that the consumer's attitude towards brand has a determinant and positive effect on purchase intention. The study by Mohd (2016) demonstrated that the consumer's attitude towards Green Brand has a direct and positive impact on the Green products purchase intention. Thus, the author proposes the following hypothesis:

H7: E-WOM credibility has a positive effect on consumer's attitude towards product/brand.

H8: The consumer's attitude towards product/brand has an effect on female consumer's purchase intention.

3. Theoretical Framework and Research Hypotheses

Based on the discussion above, the author develops a model involving the variables and relations as follows: the two factors influencing the e-WOM credibility: expertise and trustworthiness; the two

mediating variables: perceived value and attitude; and the e-WOM credibility and consumer's purchase intention. This dissertation assumes that the expertise and trustworthiness of opinion leaders have an impact on e-WOM credibility. The e-WOM credibility have an impact on the purchase intention. Also, the e-WOM credibility makes the generation of customer' value perception and attitude about product or brand, thus affecting the individual's purchase intention. The research hypotheses are supported in the literature review and presented in Figure 1.
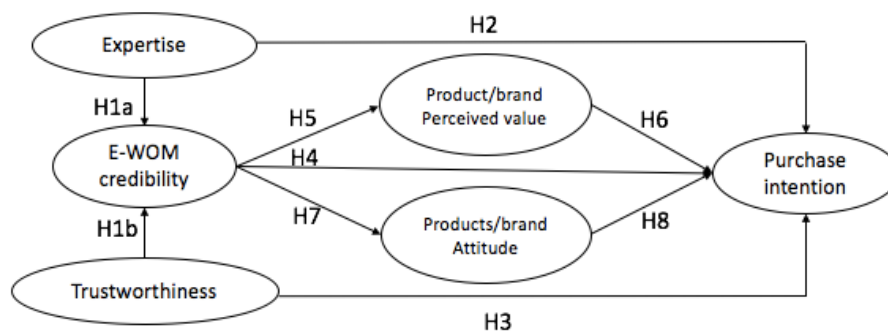
Figure 1: Conceptual Model

4. Methodology

4.1 Research type

The objective of this dissertation is to investigate the relations between variables based on testing the hypotheses previously defined. According to Saunders, Lewis & Thornhill (2009), this is an explanatory research which establish causal relationships between variables. In order to examine the effect of e-WOM of opinion leaders on the purchase intention of Chinese women, a deductive approach was chosen for the research, with a quantitative data collection technique and quantitative data analysis procedures (Saunders et al. 2009). Such method is appropriate, because it examines the relations between variables in the conceptual model and test those hypotheses. The study is cross-sectional, considering the particular phenomenon takes place at a particular time (Saunders et al. 2009).

The data was collected through an online survey through Qualtrics software and shared via social media. Collection was supported by the online Qualtrics platform. Comparing with other techniques

of data collection, the online survey has the advantages of low cost, quick distribution and collection (Saunders et al. 2009).

4.2 Population and Sample Selection

The population was defined as "the aggregate all the elements sharing some common set of characteristics and that comprise the universe for the purpose of the marketing research problem" (Malhotra & Birks, 2007, p.405). The population of this dissertation is Chinese female users of Douyin. The author adopted a non-probability convenience sampling. In this study, the questionnaire is shared through the author's online social media platform. This is a method with least expensive and least time, but also has its limitation, for example, "Convenience samples are not representative of any definable population" (Malhotra & Birks, 2007, pp.411-412). In this dissertation, the sample is made up by Chinese female users who follows one or more opinion leader of Douyin and they have read the reviews by opinion leaders.

4.3 Questionnaire and Measures

In this dissertation, the questionnaire (Appendix 1) is developed with four sections: 1) Introduction; 2) Definition of opinion leaders in Douyin; 3) Respondents' social media use information; 4) Evaluation of six constructs: expertise, trustworthiness, e-WOM credibility, product/brand perceived value, product/brand attitude, purchase intention; 5) Demographic information of respondents: age, education, occupation, monthly income.

In order to ensure the adequacy of the questionnaire, the pre-test is applied to a small sample before the formal distribution of the questionnaires. This phase aimed to detect any defects or dissonances of the measurement tools, adaptations of language used and correct errors as early as possible. The questionnaire for pre-test was applied to 15 respondents with the similar characteristics to the target population of this dissertation. After this test, the questionnaire was applied to a wider sample.

Multiple choice question, open-ended question and Likert scale are used. In order to test the previously presented research hypotheses. The Likert scale (a five-degree Likert scale ranging from 1

corresponds to " Strongly disagree " and 5 to " Strongly agree ") was used to measure the six constructs. The scales used in this study were shown reliable and valid on previous studies (Appendix 2).

All the data collected was inserted into the statistic software IBM SPSS (Statistical Package for the Social Science). 414 respondents participated in this investigation and 242 questionnaires with complete response were taken back. All the invalid questionnaires were discarded. In all the 242 questionnaires, 215 were considered as valid due to the profile of the population, because the study only considers the Chinese women respondents. Thus, the valid sample consists of 215 respondents.

5. Results Analyses

5.1 Sample Characterization

414 questionnaires were collected back. Related to the question "Do you use the social media APP Douyin?", 330 individuals (79.7%) use and 84 individuals (21.2%) don't use. Among the 330 individuals, 242 individuals (73.3%) "Follow one or more opinion leaders in Douyin" and others not. Due to the profile of respondents, the author chose to only consider Chinese female individuals as the sample for research. Among the respondents who use APP Douyin and follow opinion leaders in Douyin, filtered out 27 male respondents, finally 215 individuals are considered to be the target sample for research, which will be characterized below in Table 1. Table 1 shows the profiles of respondents, which provides their gender, age, education level, occupation and monthly net income. Due to the type of target person of the research, the sample of research consists of 215 female individuals. The questionnaire has 9 age groups. Most of the samples was comprised of individual between the ages of 20 and 24 with 39.1% and between the ages of 25 and 29 with 37.7%. We can conclude that the great majority of the sample consists of young adults.

As for the education level, 128 individuals have a bachelor degree, that made up 59.5% of the sample. Talking about the occupation, most of the individuals are student (34.8%) and worker (35.3%). In relation to monthly net income, the groups of less than 1000 yuan (130€), 1000-2000 yuan (130-260€) and 2001-5000 yuan (260-650€) made up totally 57.7%. The income level can be explained by that most respondents are students.

Table 1- Sample characteristics

Characteristics		N.	%
Gender	Female	215	100
Age	Less than 15	1	0.5
	15-19	25	11.6
	20-24	84	39.1
	25-29	81	37.7
	30-34	13	6.1
	35-39	5	2.3
	40-44	2	0.9
	45-49	2	0.9
	More than 55	2	0.9
Schooling	Middle school	3	1.4
	High school	21	9.8
	Junior college degree	30	14
	Bachelor degree	128	59.5
	Master degree	29	13.4
	Doctor degree	1	0.5
	No reply	3	1.4
Occupation	Student	75	34.8
	Merchant	4	1.8
	Government staff	12	5.6
	Company employee	18	8.4
	Worker	76	35.3
	Farmer	10	4.7
	Medical staff	2	0.9
	Retired	7	3.3
	Other	10	4.7
	No reply	1	0.5
Monthly net income (Unit: yuan)	Less than 1000	29	13.5
	1000-2000	30	14
	2001-5000	65	30.2
	5001-10000	62	28.8
	More than 10000	23	10.7
	No reply	6	2.8

5.2 Descriptive Analysis

The descriptive analysis can help analyze the constructs and its items that compose the conceptual model and can characterize the sample behavior. As the information shows in Table 2 (Appendix 3), the minimum values of all the constructs are 1 and the maximum values are 5, which indicates that the respondents' opinions are varied from strongly disagree to strongly agree.

Regarding to the mean value, all values of variables are among 3.15-4.01, which shows the respondents feel basically positive about the six constructs. The question Q13_4 (*I have a pleasant idea of this product/brand.*) has highest mean value ($\overline{X}$=4.010; SD=0.93), followed by Q11_3 (*The product/brand recommended by opinion leader has an acceptable standard of quality.*) ($\overline{X}$=3.89; SD=0.955). The Q8_3 (*I think the review or information is accurate.*) has the lowest mean value but the highest standard deviation ($\overline{X}$=3.15; SD=1.122), meaning that the answers varied more than other variables.

5.3 Principal Component Analysis

A Principal component analysis (PCA) carried out for assessing the homogeneity of the variables. Two test are implemented: the Kaiser-Meyer-Olkin (KMO) test and the Bartlett's test were used to evaluate the inter-correlation among items (Mooi & Sarstedt, 2011). According to the results of KMO test (Table 3), the sampling adequacy of all the variables range from average to very good, for the values of KMO are all above 0.6. The sampling adequacy of Product/brand Perceived Value is very good, with KMO value 0.902. The expertise, trustworthiness, product/brand attitude and purchase Intention shows an average level of adequacy, with the KMO values are respectively 0.725, 0.713, 0.784 and 0.713. The e-WOM credibility (KMO=0.699) indicates a reasonable level of adequacy. Through the Bartlett's Test of Sphericity, it is possible to infer a significantly overall good adequacy (P<0.001) for the variables. The percentage of variance explained for each construct is all above 56%. Only one component was extracted for each variable, except the product/brand perceived value, which were four components extracted (Appendix 4: Rotated Component Matrix).

Table 3- Principal Component Analysis

Construct	Item	KMO	Bartlett's Test of Sphericity			% variance explained	Component Matrix
			Approx. Chi-Square	df	Sig.		
Expertise	EX1	0.725	165.485	6	0.000	56.644	0.751
	EX2						0.765
	EX3						0.695
	EX4						0.744
Trustworthiness	TR1	0.713	211.778	6	0.000	57.72	0.783
	TR2						0.771
	TR3						0.743
	TR4						0.740
E-WOM Credibility	EC1	0.699	180.851	3	0.000	72.74	0.813
	EC2						0.854
	EC3						0.838
Product/brand Perceived Value	PV-EV1	0.902	1365.841	91	0.000	9.132	0.724
	PV-EV2						0.693
	PV-EV3						0.651
	PV-EV4						0.647
	PV-SV1					45.49	0.714
	PV-SV2						0.660
	PV-SV3						0.677
	PV-SV4						0.679
	PV-QV1					7.2	0.701
	PV-QV2						0.716
	PV-QV3						0.626
	PV-PV1					5.83	0.640
	PV-PV2						0.660
	PV-PV3						0.646
Product/brand Attitude	PA1	0.784	242.486	6	0.000	70.81	0.812
	PA2						0.801
	PA3						0.759
	PA4						0.771
Purchase Intention	PI1	0.741	212.457	6	0.000	62.35	0.830
	PI2						0.784
	PI3						0.727
	PI4						0.709

5.4 Reliability Analysis

The Cronbach's Alpha was used to analyze the reliability and internal consistency for constructs. The Cronbach alpha coefficient varies from 0 to 1 and a value of 0.60 is acceptable. (Mooi, & Sarstedt, 2011). It can be observed in Table 4, all the coefficients of Cronbach's Alpha are above 0.7. It can be concluded that all the constructs have good reliability and internal consistency.

Thus, six synthetic indices were created for each construct through the arithmetic average of the items, corresponding to the constructs in the research model: expertise, trustworthiness, e-WOM credibility, product/brand perceived value, product/brand attitude and purchase intention.

Table 4- Reliability and internal consistency analysis

Construct		Cronbach's Alpha	N of Items
Expertise		0.718	4
Trustworthiness		0.754	4
E-WOM Credibility		0.78	3
Product/brand Perceived Value	Emotional value	0.782	4
	Social value	0.836	4
	Quality value	0.744	3
	Price value	0.735	3
Product/brand Attitude		0.794	4
Purchase Intention		0.755	4

5.5 Correlation Analysis

Correlation analysis (Pearson R) was used to explore the direction and strength of the linear relationship between variables. According to the Table 5, it can be verified there was a moderate and positive correlation between expertise and e-WOM credibility (r=0.443, P=0.000), and moderate and positive correlation between trustworthiness and e-WOM credibility (r=0.528, P=0.000). Also, there was a strong and positive correlation between expertise and purchase intention (r=0.538, P=0.000) and trustworthiness and purchase intention (r=0.523, P=0.000), while there was a moderate and positive correlation between e-WOM credibility and purchase intention. (r=0.418, P=0.000). It can be verified there was a strong and positive correlation between e-WOM credibility and product/brand perceived value (r=0.664, P=0.000) and e-WOM credibility and product/brand attitude (r=0.510, P=0.000). Also, there was a strong and positive correlation between product/brand perceived value

and purchase intention (r=0.701, P=0.000) and product/brand attitude and purchase intention (r=0.644, P=0.000)

Table 5- Correlation Analysis (Pearson R)

Correlations - Pearson Correlation

	Expertise	Trustworthiness	E-WOM Credibility	Product/brand Perceived Value	Product/brand Attitude
Expertise					
Trustworthiness	0.605*				
E-WOM Credibility	0.443*	0.528*			
Product/brand Perceived Value	0.611*	0.670*	0.664*		
Product/brand Attitude	0.505*	0.569*	0.510*	0.711*	
Purchase Intention	0.538*	0.523*	0.418*	0.701*	0.644*

p=0.000 for all correlations; N=215 for all;
* Correlation is significant at the 0.01 level (2-tailed).

5.6 Assumptions Validation of Simple and Multiple regression

We started the regression analysis from checking the validity of the assumptions. The assumption of normally distributed errors is observed by the normal P-P Plot, which shows the points lie in a reasonably diagonal line from bottom left to top right, thus, no major deviations from normality. It suggests that the distribution of errors is approximately normal. The central limit law states that if the sample is larger than 30, the variable distribution is very close to a normal distribution. Given the reasonable sample size of this dissertation (n=215 > 30), it is possible to assume normality of variables. The assumption of mean error should be zero is verified by residuals statistics. The Scatterplot is used to detect the presence of homoscedasticity and outliers. As it can be seen in the Scatterplot graph, most points concentrated along the 0 point. We can verify that the residuals are rectangularly distributed. A Durbin-Watson test was conducted to check if errors are auto correlated. When the value close to 2, indicates that the errors are not auto-correlated. The assumption of multicollinearity was detected by calculation the value of Tolerance and VIF (Variance Inflation Factor), which below 0.1 or above 10 respectively indicate multicollinearity. All the values of variables are contained within the limits. Therefore, there are no multicollinearity between variables (Appendix 4, 5, 6 and 7).

5.7 Test of Hypotheses

5.7.1 The Relation Between Expertise, Trustworthiness and E-WOM Credibility

A multiple linear regression analysis was performed in order to test the hypotheses H1a and H1b (model 1), where the dependent variable is e-WOM credibility and the independent variable is expertise and trustworthiness (Table 6). According to the result, the expertise and trustworthiness explain about 29.6% of the variation of e-WOM credibility (adjusted R^2=0.296). The F-test indicates the model fits the data well and the model is statistically significant ($F_{(2, 215)}$=45.972; P=0.000). The standard error of the estimate is low (S=0.681), thus indicating a well adjusted between the observed values and the values estimated by the model.

In relation to the effect that the independent variables have on the e-WOM credibility, it can be verified that expertise (Beta=0.194; t=2.698; Sig.=0.008) and trustworthiness (Beta=0.410; t=5.689; Sig.=0.000) have a statistically positive (Sig. < 0.05) impact on e-WOM credibility. Thus, H1a and H1b have found statistically support and were therefore accepted.

Table 6 - Summary of Multiple Linear Regression (Model 1)

Model	Variables	R Adjusted	Anova			Std. Error of the Estimate	Unstandardized B	Standardized Coefficients (β)	t	Sig.
			df	F	Sig.					
1	(Constant)	0.296	2	45.972	0.000*	0.681	0.892		3.209	0.002
	Expertise						0.220	0.194	2.698	0.008
	Trustworthiness						0.480	0.410	5.689	0.000
Dependent Variable: E-WOM Credibility										
*Predictors: (Constant), Expertise , Trustworthiness										

5.7.2 The Relation Between e-WOM Credibility and Product/brand Perceived Value

A simple linear regression analysis was performed in order to test the hypotheses H5 (model 2), where the dependent variable is product/brand perceived value and the independent variable is e-WOM credibility (Table 7). According to the result, the e-WOM credibility explain about 44.1% of the variation of product/brand perceived value (R^2=0.441). The F-test indicates the model fits the data well and the model is statistically significant ($F_{(1, 215)}$ =168.100; P=0.000). The standard error of the estimate

is low (S=0.448), thus indicating a well adjusted between the observed values and the values estimated by the model.

In relation to the impact that the independent variables have on the product/brand perceived value, it can be verified that e-WOM credibility (Beta=0.664; t=12.965; Sig=0.000) have a statistically positive impact (Sig. < 0.05) on product/brand perceived value. Thus, H5 have found statistically support and were therefore accepted.

Table 7- Summary of Simple Linear Regression (Model 2)

Model	Variables	R^2	Anova			Std. Error of the Estimate	Unstandardized B	Standardized Coefficients (β)	t	Sig.
			df	F	Sig.					
2	(Constant)	0.441	1	168.100	0.000*	0.448	1.894		13.377	0.000
	E-WOM Credibility						0.511	0.664	12.965	0.000
Dependent Variable: Product/brand Perceived Value										
*Predictors: (Constant), e-WOM Credibility										

5.7.3 The Relation Between E-WOM Credibility and Product/brand Attitude

A simple linear regression analysis was performed in order to test the hypotheses H7 (model 3), where the dependent variable is product/brand attitude and the independent variable is e-WOM credibility (Table 8). According to the result, the e-WOM credibility explain about 26% of the variation of product/brand attitude (R^2=0.260). The F-test indicates the model fits the data well and the model is statistically significant (F $_{(1, 215)}$ =74.981; P=0.000). The standard error of the estimate is low (S=0.603), thus indicating a well adjusted between the observed values and the values estimated by the model.

In relation to the impact that the independent variables have on the product/brand perceived value, it can be verified that e-WOM credibility (Beta=0.510; t=8.659; Sig=0.000) have a statistically positive impact (Sig. < 0.05) on product/brand attitude. Thus, H7 have found statistically support and were therefore accepted.

Table 8- Summary of Simple Linear Regression (Model 3)

Model	Variables	R	Anova			Std. Error of the Estimate	Unstandardized B	Standardized Coefficients (β)	t	Sig.
			df	F	Sig.					
3	(Constant)	0.260	1	74.981	0.000*	0.603	2.352		12.882	0.000
	E-WOM Credibility						0.440	0.510	8.659	0.000
Dependent Variable: Product/brand Attitude										
*Predictors: (Constant), e-WOM Credibility										

5.7.4 The Relation Between Expertise, Trustworthiness, E-WOM Credibility, Product/brand Perceived Value, Product/brand Attitude and Purchase Intention

A multiple linear regression analysis was performed in order to test the hypotheses H2 and H3, H4, H6 and H8 (model 4), where the dependent variable is purchase intention and the independent variables are expertise, trustworthiness, e-WOM credibility, product/brand perceived value, product/brand attitude (Table 9). According to the result, the five independent variables (expertise, trustworthiness, e-WOM credibility, product/brand perceived value, product/brand attitude) explain about 54.4% of the variation of purchase intention (adjusted R^2=0.544). The F-test indicates the model fits the data well and the model is statistically significant ($F_{(5, 215)}$=52.117; P=0.000). The standard error of the estimate is low (S=0.478), thus indicating a well adjusted between the observed values and the values estimated by the model.

In relation to the impact that the independent variables have on the purchase intention, it can be verified that expertise (Beta=0.145; t=2.345; Sig.=0.020), product/brand perceived value (Beta=0.480; t=5.756; Sig.=0.000) and product/brand attitude (Beta=0.280; t=4.188; Sig.=0.000) have a statistically positive (Sig. < 0.05) impact on purchase intention, with the product/brand perceived value recording the strongest relation with purchase intention and the expertise presenting the weakest relation. Thus, H2, H6 and H8 have found statistically support and were therefore accepted. However, it can be verified that e-WOM credibility (Beta=-0.116; t=-1.857; Sig.=0.065) and trustworthiness (Beta=0.015; t=0.221; Sig.=0.826) don't have statistically (Sig.≥0.05) impact on purchase intention, thus the H3 and H4 have not been supported.

Table 9- Summary of Multiple Linear Regression (Model 4)

Model	Variables	R² Adjusted	Anova			Std. Error of the Estimate	Unstandardized B	Standardized Coefficients (β)	t	Sig.
			df	F	Sig.					
4	(Constant)	0.544	5	52.117	0.000*	0.478	0.443		2.051	0.042
	Expertise						0.144	0.145	2.345	0.020
	Trustworthiness						0.015	0.015	0.221	0.826
	E-WOM Credibility						-0.101	-0.116	-1.857	0.065
	Product/brand Perceived Value						0.544	0.480	5.756	0.000
	Product/brand Attitude						0.284	0.280	4.188	0.000

Dependent Variable: Purchase Intention

*Predictors: (Constant), Expertise , Trustworthiness, E-WOM Credibility, Product/brand Perceived Value, Product/brand Attitude

6. Conclusions

In this chapter, we compare the key findings obtained with the existing literature and present the discussion of the present investigation. Also, we present the implications, limitations, as well as the suggestions for future study.

6.1 Discussions and Conclusions

This dissertation intends to analyze the impact of e-WOM message made by opinion leaders on the purchase intention of Chinese female consumers. Also, to investigate the impact of two variables product/brand perceived value and attitude on the purchase intention of Chinese female consumers. For this end, we proposed nine hypotheses and realized a series of analysis. The results of research hypotheses testing are presented as follow (Table 10):

Table 10- Analysis Results

Hypotheses	Test Results
H1a: The expertise of opinion leaders has a positive impact on e-WOM credibility.	Supported
H1b: The trustworthiness of opinion leaders has a positive impact on e-WOM credibility.	Supported
H2: Expertise has a positive effect on female consumer's purchase intention in China.	Supported
H3: Trustworthiness has a positive effect on female consumer's purchase intention in China.	Not Supported
H4: E-WOM credibility has a positive effect on female consumer's purchase intention in China.	Not Supported
H5: The e-WOM credibility has a positive impact effect on perceived value about product/brand.	Supported
H6: The perceived value about product/brand has a positive impact effect on purchase intention.	Supported
H7: E-WOM credibility has a positive effect on consumer's attitude towards product/brand.	Supported
H8: The consumer's attitude towards product/brand has an effect on female consumer's purchase intention.	Supported

6.1.1 Effect of Expertise and Trustworthiness on E-WOM Credibility

The hypotheses H1a and H1b has been supported by the test. In the multiple linear regression, model 1, the standardized coefficients beta of expertise and trustworthiness is respectively 0.194 and 0.410, and shows statistically significant (sig<0.05). It can be concluded that expertise and trustworthiness have positive impact on the e-WOM credibility. The finding is in line with the research by Fang (2014), Ismagilova et al. (2019), and Shamhuyenhanzva et al. (2016).

The finding revealed that when the the information came from a source with high level of expertise and trustworthiness, the information receiver will consider information credible. The trustworthiness has a stronger effect than expertise.

6.1.2 Effect of expertise, trustworthiness, e-WOM credibility and purchase intention

The hypotheses H2 has been supported but H3 and H4 has not been supported by the test. In the multiple linear regression, model 4, the standardized coefficients beta of expertise is 0.145 shows

statistically significant (sig<0.05). It can be concluded that expertise has positive impact on purchase intention. The findings are in line with the research by Ismagilova et al. (2019). In social media Douyin, opinion leaders are expert in a certain field and they usually lead "celebrity effect". Consumers treats them as professional information source. Therefore, the consumers will treat the recommendations made by opinion leaders as specialized and such recommendations will affect purchase intention.

However, trustworthiness and e-WOM credibility doesn't show statistically impact on purchase intention (sig ≥0.05). The finding is opposite with the research by Shamhuyenhanzva et al. (2016), Yan et al. (2018) and Bataineh (2015). The reason that trustworthiness has not showed statistically significant could be explained by that there are kinds of types of opinion leaders, such as celebrity, v-blogger with many fans, experts in various fields. During the process of information searching, although consumer believes that one opinion leader himself is reliable, due to the mass of information quantity and the uneven, uncontrolled information quality, consumer values more opinion leaders' expertise, such as professional knowledge, high involvement and practical experience about specific product/brand. Another reason could be that in China, "KOL marketing strategies" has been adopted by enterprise or brand, when the recommendations and reviews made by opinion leaders involved with remuneration provided by enterprise, consumers may be uncertainty about the motivation of opinion leaders to recommend one product/brand. Consumers may think that opinion leader's recommendations are driven by profit, and consumers are not sure if the opinion leader really spend time or effort to acquaint the product knowledgement and provide consumers with valuable product information. Under such circumstance, the recommendations may not arouse consumer' purchase intention. As for the effect of e-WOM credibility, although e-WOM or recommendations is treated as credible by consumers, there are other factors will be considered by consumers when making purchase decision, such as the e-WOM quality (Ladhari, & Michaud, 2015; Tsao, & Hsieh, 2015), quantity and valence (Tsao, Hsieh, Shih, & Lin, 2015), etc. Therefore, on the basis of the e-WOM credibility, after consumer read the e-WOM by opinion leader, they will make comprehensive judgments on e-WOM and theirs purchase decisions is making with reference to the others factors. In this dissertation, we suggest that e-WOM credibility can take indirect effect through product/brand perceived value and attitude.

6.1.3 Effect of product/brand perceived value and attitude on purchase intention

The hypotheses H5, H6, H7 and H8 have been supported by the test. In the simple linear regression, model 2 and model 3, the standardized coefficients beta of e-WOM credibility is respectively 0.664 and 0.510, and shows statistically significant (sig<0.05). In the multiple linear regression, model 4, the standardized coefficients beta of product/brand perceived value and attitude is respectively 0.48 and 0.28, and shows statistically significant (sig<0.05). The findings verified the previous results by Liang et al. (2017) and Kudeshia and Kumar (2017). It indicates if the recommendations made by opinion leaders is treated as credible by consumers, it can generate consumer's positive attitude towards the product, and at the same time, it will also generate emotional, quality, price and social value perceptions. The consumer who have positive perceived value and attitude toward product or brand recommended by opinion leaders will have a tendency to develop the purchase intention for the product or brand evaluated in the WOM posted on social media APP, Douyin.

Overall, the research findings offer an understanding of the relation between e-WOM message of opinion leaders in Douyin and the purchase intention of female consumers in China. The findings provide an insight into the importance of opinion leader's source expertise and trustworthiness on the e-WOM credibility. Also, the findings indicate the expertise has a significantly positive effect on purchase intention. Based on the S-O-R model, the consumer's product/brand perceived value and attitude (organism) can be influenced by e-WOM message (stimulus). The positive effects of consumer's product/brand perceived value and attitude on purchase intention (response) were verified in this research.

6.2 Implications

6.2.1 Theoretical Implications

Existing researches have showed the more and more importance role of social media e-WOM, especially the e-WOM by opinion leader (Erkan & Evans, 2016; Kudeshia & Kumar, 2017). From the theoretical perspective, this dissertation contributes to a wider knowledge about the effect of e-WOM

in social media platforms on the purchase intention, more specifically, the e-WOM message by opinion leaders in Douyin. Focused on the segment of Chinese female consumers and based on the conceptual model, this dissertation explained how the independent variable (expertise) influence the purchase intention of Chinese female consumers. In addition, relation between e-WOM credibility and purchase intention may exist indirectly through product/brand perceived value and attitude, since the results confirm the statistically significant effect of product/brand perceived value and attitude on purchase intention of Chinese female consumers.

6.2.2 Management Implications

This dissertation provided some useful implications for enterprises or brand. Firstly, the enterprise or brand should pay attention to the influence power of opinion leaders. In the context of digital area, consumers usually search information about a certain product/brand before they make a purchase. Opinion leaders in Douyin are one of the major part of spreading e-WOM. They are considered as professional by consumers. Therefore, their recommendation will influence the purchase decision making process of consumers. According to the segmentation and product positioning, the enterprise or brand can choose appropriate opinion leaders to collaborate for advising product to consumers according the professional area of opinion leaders. The emerging marketing trends are also constantly updated. The enterprise or brand should make scientific analysis of products, type of opinion leaders and their targeting consumers, launching advertisements accurately to achieve the best propagation effects and impact on consumer.

Secondly, though the e-WOM credibility doesn't show statistically direct impact on purchase intention, it is suggested that the e-WOM credibility has an indirect effect on purchase intention, through product/brand perceived value and attitude. Therefore, it is suggested that marketing campaign or propagation by opinion leader should follow the society fashion trend and attach importance to the consumer's psychological need. From the perspective of the type and content of advertisement, establish a good and long-lasting product image and company characters, arousing the favorable attitude of consumer. It can be added some content in advertisement which imply consumer that purchasing the related product can help them obtain praise and recognition from friends, and also

can help construct good personal image. At the same time, opinion leader should make a good explanation about the price of the product/brand and compare the main effects with same types of products, so that consumers can perceive the advantages in terms of price and quality.

Finally, the enterprise or brand can offer their cooperative-opinion leaders training opportunities to enrich their knowledge about product and to improve the level of expertise. As the main digital content creators, opinion leader can improve their way of tailoring recommendations, trying to be more professional and authoritative, valuing the interaction with consumers, answering consumer's questions about product, so that the recommendations will be considered as more convincing by consumers.

6.3 Limitations and Suggestions for Future Research

Our findings should be interpreted in light of its limitations. The first limitation is that the sample can not provide a comprehensive type of the overall Chinese female population. The questionnaire is mainly distributed through social media platforms and non-probability convenience is used so that most respondents are students and the age ranged from 20-29. Therefore, the results may not safely represent the overall population and the findings may not be applicable for other age ranges. In addition to this, the sample size is small due to the limitation of time and resources: there are only 215 valid questionnaires returned. It is suggested that the future research enlarges the sample scope, including different occupations, age groups and geographical locations, as to properly represent the population. Secondly, it doesn't subdivide the type of opinion leader or the categories of product/brand, as the respondents were asked to base on one opinion leader and the product recommended to answer the questionnaire. The further study can divide finely the type of opinion leaders and focus on one specific product/brand categories. Finally, as for the antecedents of e-WOM credibility, we only proposed two factors: expertise and trustworthiness. However, there are others factors that also have an impact on e-WOM credibility, such as attractiveness (familiarity, similarity and likeability). We did not consider other potential factors which may have impact on purchase intention such as valence of e-WOM content, e-WOM intensity, perceived risk. Further studies can introduce more variables to deepen the analysis and increase the persuasiveness of the findings.

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Appendixes

Appendix 1 Questionnaire

Questionnaire

Part 1 Introduction

This questionnaire survey is for collecting data which will be used for a dissertation about **effect of e-WOM by opinion leaders on the purchase intention of female consumers in China.** This investigation is realized for the dissertation of the Master in Marketing of Lisbon School of Economic & Management of University of Lisbon.

All information collected from this survey will be used for academic purpose only and will be kept in confidential. All your information and responses are confidential and anonymous.

It will cost about 10 minutes to complete the questionnaire. When answering the questionnaire, you should choose the answers that you think are closest to your opinion. There are no right or wrong answers. Your participation is very important and will make a big contribution for the investigation. Thank you for your cooperation!

Part 2 Definition of opinion leaders

Opinion leaders refer to individual or organization usually share their ideas or reviews which can influence the attitude or action of opinion receivers. In Douyin app, opinion leaders usually have many fans. They share insights or ideas in a certain field, and recommend product/brand to through short videos.

Part 3 Social media utilization

1. Do you use social media app: Douyin?

A. Yes   B. No

Skip to Q2 if choose "Yes"; Finish the survey if choose "No"

2. How long have you been using this app?

A. Less than 3 months

B. 3 to 6 months

C. 7 to 12 months

D. 1 to 2 years

E. More than 2 years

3. Follow any opinion leader in Douyin?

A. Yes   B. No (finish)

Skip to Q4 if choose "Yes"; Finish the survey if choose "No"

4. If you answered "yes" to the previous answer, enter at least one name of the opinion leader:

_____.

5. Pleaser enter at least one product recommended by the opinion leader.

Part 4

The following questions and statements are based on the opinion leaders you answered in the last

question. Please mark in the Likert scale between 1 and 5. (1. Strongly disagree 2. Disagree 3. Neutral

4. Agree 5. Strongly agree)

Expertise: I think the Douyin opinion leader is…

	1	2	3	4	5
6_1. The Douyin opinion leader is knowledgeable in information about product/brand.					
6_2. The Douyin opinion leader is expert in evaluation the product/brand.					
6_3. The Douyin opinion leader is experienced in consuming the product.					
6_4. The Douyin opinion leader is capable of providing product/brand information.					

Trustworthiness: I think the Douyin opinion leader is…

	1	2	3	4	5
7_1. The Douyin opinion leader is trustworthy.					
7_2. The Douyin opinion leader is reliable.					
7_3. The Douyin opinion leader is sincere.					
7_4. The Douyin opinion leader is honest.					

Credibility: The review or information by opinion leader is…

	1	2	3	4	5
8_1. I think the review or information is factual.					
8_2. I think the review or information is is credible.					
8_3. I think the review or information is is accurate.					

Product/brand perceived value

	1	2	3	4	5
9_1. The product/brand recommended by opinion leader would give me pleasure. v 9_2. The product/brand recommended by opinion leader is one that I would enjoy. 9_3. The reviews of product/brand by opinion leader make me want to use it. 9_4. I would feel relaxed about using the product/brand recommended by opinion leader.					
Using the product/brand recommended by opinion leader would… 10_1. It would help me to feel acceptable. 10_2. It would help me to improve the way I am perceived. 10_3. It would help me to gain social approval. 10_4. It would help me to make a good impression on other people.					
11_1. The product/brand recommended by opinion leader has consistent quality. 11_2. The product/brand recommended by opinion leader is well made. 11_3. The product/brand recommended by opinion leader has an acceptable standard of quality.					
12_1. The product/brand recommended by opinion leader is… 12_2. The product/brand is reasonably priced. 12_3. The product/brand offers value for money. 12_4. The product/brand is economical.					

Product/brand attitude

	1	2	3	4	5
13_1. product/brand is appealing.					
13_2. The product/brand is favorable.					
13_3. I like the product/brand.					
13_4. I have a pleasant idea of this product/brand.					

6. Purchase intention: After reading the information or reviews about product/brand:

	1	2	3	4	5
14_1.The likelihood of purchasing is high.					
14_2. I predict to purchase the product next time I need a product.					
14_3. I will recommend the product to my friends.					
14_4. I will definitely try the product.					

Part 5 Basic Information

15. What is your age?

A. less than 15

B. 15-19

C. 20-24

D. 25-29

E. 30-34

D. 35-39

E. 40-44

F. 45-49

G. 50-55

F. more than 55

16. What is your education level?

A. Primary education

B. Secondary education

C. Bachelor

D. Master

E. Doctor

D. Other _____

17. What is your occupation?

A. Student

B. Businessman

C. Government bureaucrat

D. Teacher

E. Company staff

F. Worker

G. Farmer

H. Medical staff

I. Retiree

J. Unemployment

K. Others

18. What is your monthly income?

A. Less than 1000 yuan.

B. 1000-2000 yuan

C. 2001-5000 yuan

D. 5001-1000 yuan

E. More than 1000 yuan

Appendix 2 Measures

Construct	Items	Author
Expertise	EX1. The Douyin opinion leader is knowledgeable in information about product/brand. EX2. The Douyin opinion leader is expert in evaluation the product/brand. EX3. The Douyin opinion leader is experienced in consuming the product. EX4. The Douyin opinion leader is capable of providing product/brand information.	Teng, Wei, Wei & Yee (2014); Xiao, Wang, & Chan (2018); Fang (2014)
Trustworthiness	TR1. The Douyin opinion leader is trustworthy. TR2. The Douyin opinion leader is reliable. TR3. The Douyin opinion leader is sincere. TR4. The Douyin opinion leader is honest.	Teng, Wei, Wei & Yee (2014); Xiao, Wang, & Chan (2018)
E-wom credibility	The review or information by opinion leader is… ES1. I think the review or information is factual. EC2. I think the review or information is is credible. EC3. I think the review or information is is accurate.	Fang (2014)
Product/brand perceived value	Emotional value: PV-EV1. The product/brand recommended by opinion leader would give me pleasure. PV-EV2. The product/brand recommended by opinion leader is one that I would enjoy. PV-EV3. The reviews of product/brand by opinion leader make me want to use it. PV-EV4. I would feel relaxed about using the product/brand recommended by opinion leader.	Sweeney & Soutar (2001)

Construct	Items	Author
Product/brand perceived value	Social value: Using the product/brand recommended by opinion leader would... PV-SV1. It would help me to feel acceptable. PV-SV2. It would help me to improve the way I am perceived. PV-SV3. It would help me to gain social approval. PV-SV4.It would help me to make a good impression on other people.	Sweeney & Soutar (2001)
	Quality value: PV-QV1.　The product/brand recommended by opinion leader has consistent quality. PV-QV2. The product/brand recommended by opinion leader is well made. PV-QV3. The product/brand recommended by opinion leader has an acceptable standard of quality.	
	Price value: The product/brand recommended by opinion leader.. PV-PV1. The product/brand is reasonably priced. PV-PV2. The product/brand offers value for money. PV-PV3. The product/brand is economical.	
Product/brand attitude	PA1. The product/brand is appealing. PA2. The product/brand is favorable. PA3. I like the product/brand. PA4. I have a pleasant idea of this product/brand.	Kudeshia & Kumar (2017) Xiao, Wang & Chan (2018)
Purchase intention	After reading the information or reviews about product/brand: PI1. The likelihood of purchasing is high. PI2. I predict to purchase the product next time I need a product. PI3. I will recommend the product to my friends. PI4. I will definitely try the product.	Erkan & Evans (2016)

Appendix 3 Descriptive analysis

		N	Minimum	Maximum	Mean	Std. Deviation
Expertise	EX1	215	1	5	3.570	1.145
	EX2	215	1	5	3.450	0.998
	EX3	215	1	5	3.690	1.136
	EX4	215	1	5	3.870	0.941
Trustworthiness	TR1	215	1	5	3.710	0.952
	TR2	215	1	5	3.730	0.899
	TR3	215	1	5	3.730	1.018
	TR4	215	1	5	3.700	1.017
Credibility	EC1	215	1	5	3.560	1.002
	EC2	215	1	5	3.690	0.962
	EC3	215	1	5	3.150	1.122
Product/brand Perceived value	PV-EV1	215	1	5	3.690	1.072
	PV-EV2	215	1	5	3.790	1.045
	PV-EV3	215	1	5	3.780	1.003
	PV-EV4	215	1	5	3.680	0.944
	PV-SV1	215	1	5	3.480	1.123
	PV-SV2	215	1	5	3.400	1.106
	PV-SV3	215	1	5	3.280	1.163
	PV-SV4	215	1	5	3.550	1.057
	PV-QV1	215	1	5	3.530	1.049
	PV-QV2	215	1	5	3.770	0.886
	PV-QV3	215	1	5	3.890	0.955
	PV-PV1	215	1	5	3.670	1.066
	PV-PV2	215	1	5	3.800	0.917
	PV-PV3	215	1	5	3.600	1.018
Attitude	PA1	215	1	5	3.840	0.998
	PA2	215	1	5	3.750	0.986
	PA3	215	1	5	3.870	0.855
	PA4	215	1	5	4.010	0.930
Purchase intention	PI1	215	1	5	3.780	0.920
	PI2	215	1	5	3.860	0.971
	PI3	215	1	5	3.730	0.971
	PI4	215	1	5	3.660	1.115

Appendix 4 Rotated Component Matrix (Product/brand perceived value)

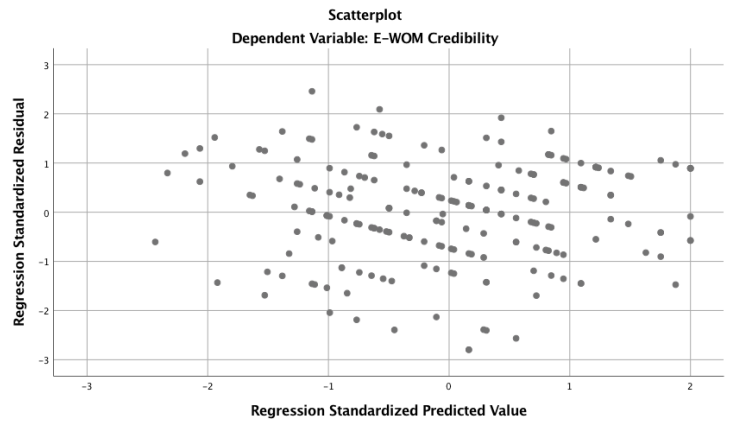| Table 11-Rotated Component Matrix				
	Component			
	1	2	3	4
PV-EV1		0.660		
PV-EV2		0.556		
PV-EV3		0.619		
PV-EV4		0.421		
PV-SV1	0.697			
PV-SV2	0.799			
PV-SV3	0.782			
PV-SV4	0.748			
PV-QV1			0.482	
PV-QV2			0.681	
PV-QV3			0.780	
PV-PV1				0.670
PV-PV2				0.802
PV-PV3				0.433
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				

Appendix 5 Multiple linear regression (Model 1)

Table 12 - Validation of assumptions of multiple linear regression (Model 1)

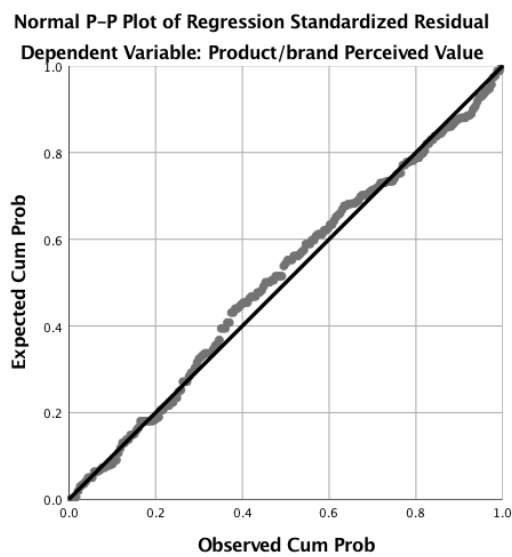| Model	Variables	N	Independent errors	Collinearity Statistics	
			Durbin-Watson	Tolerance	VIF
1	(Constant)	215	1.904		
	Expertise			0.633	1.579
	Trustworthiness			0.633	1.579
Predictors: (Constant), Trustworthiness, Expertise					
Dependent Variable: e-WOM Credibility					
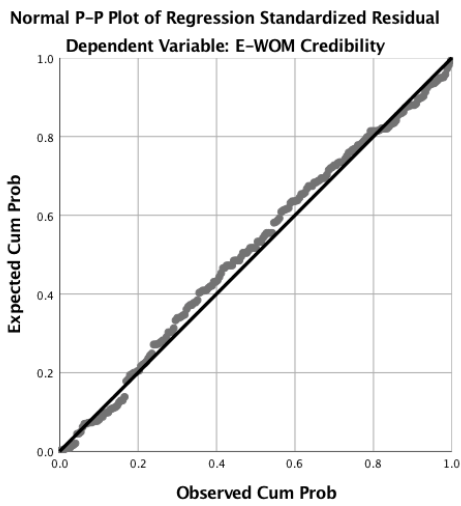
Graph 1 Normal P-P Plot (Model 1)   Graph 2 Scatterplot (Model 1)

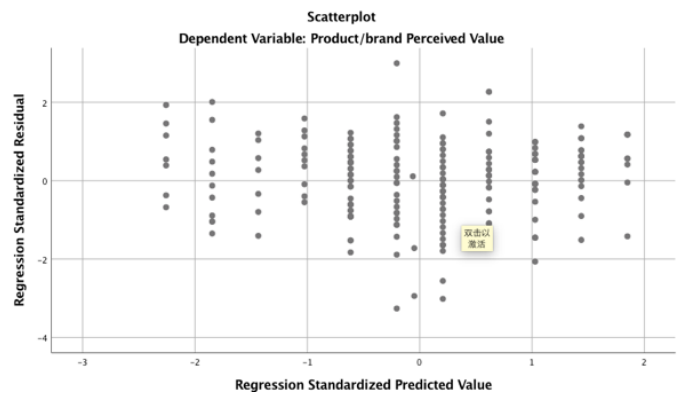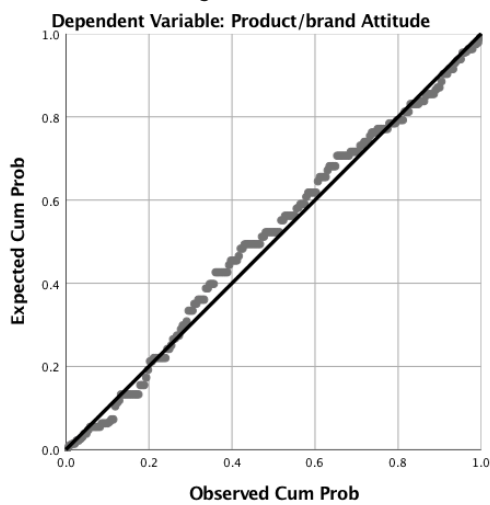**Appendix 6 Simple linear regression (Model 2)**

Table 13 - Validation of assumptions of simple linear regression (Model 2)

Model	Variables	N	Independent errors	Collinearity Statistics	
			Durbin-Watson	Tolerance	VIF
2	(Constant)	215	1.998		
	Product/brand Perceived Value			/	/
Predictors: (Constant), e-WOM Credibility					
Dependent Variable: Product/brand Perceived Value					

Graph 3 Normal P-P Plot (Model 2)   Graph 4 Scatterplot (Model 2)
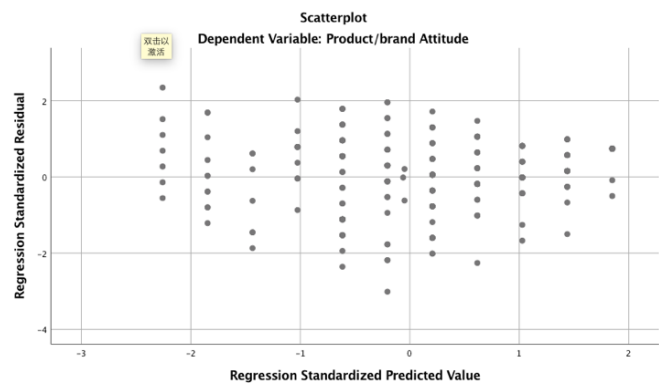
Appendix 7 Simple linear regression (Model 3)

Table 14- Validation of assumptions of simple linear regression (Model 4)

Model	Variables	N	Independent errors	Collinearity Statistics	
			Durbin-Watson	Tolerance	VIF
3	(Constant)	215	2.064		
	Product/brand Attitude			/	/
Predictors: (Constant), e-WOM Credibility					
Dependent Variable: Product/brand Attitude					

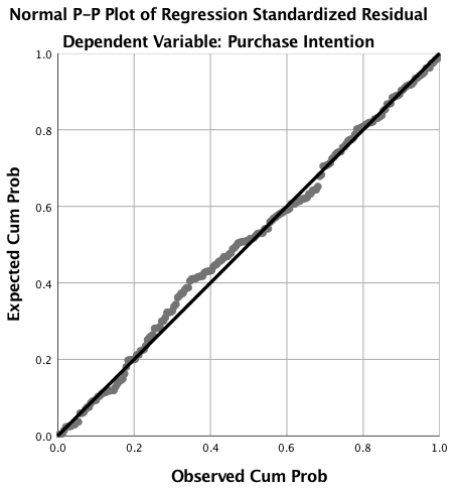Graph 5 Normal P-P Plot (Model 3)
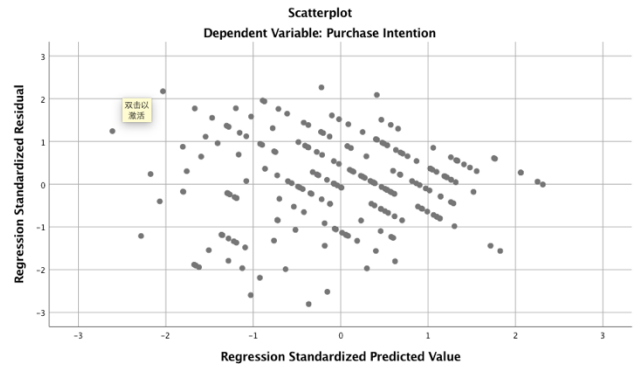

Graph 6 Scatterplot (Model 3)

Appendix 8 Multiple linear regression (Model 4)

Table 15- Validation of assumptions of multiple linear regression (Model 4)

Model	Variables	N	Independent errors	Collinearity Statistics	
			Durbin-Watson	Tolerance	VIF
4	(Constant)	215	1.963		
	Expertise			0.503	1.987
	Trustworthiness			0.413	2.423
	E-WOM Credibility			0.485	2.063
	Product/brand Perceived Value			0.236	4.229
	Product/brand Attitude			0.432	2.317
Dependent Variable: Purchase Intention					

Normal P–P Plot of Regression Standardized Residual

Dependent Variable: Purchase Intention

Scatterplot

Dependent Variable: Purchase Intention

Graph 7 Normal P-P Plot (Model 3)   Graph 8 Scatterplot (Model 3)