

The Impacts of Online Word-of-mouth on Consumer's Buying Intention on Apparel: An Empirical Study

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Abstract—Based on relative studies of home and abroad and consumer's tendency to brand and product, this essay has established a model that the message impressions of online word-of-mouth and opinion leaders have influence on consumer's buying intention on Apparel, which is proved by the questionnaires of network consumers. The study has found out that the message impression of online word-of-mouth and leader's comments have much influence on consumer's willingness of buying clothes; the information of online word-of-mouth influences its receiver's attitude towards brand and consumer's willingness of buying clothes positively in the end. It provides suggestions for costumes websites on how to make an effective marketing strategy taking the advantages of online word-of-mouth.

Index Terms—online word-of-mouth, apparel purchase intention, consumer attitude, message impression, opinion leaders

I. INTRODUCTION

With popularity of the Internet, word-of-mouth has developed from single and linear traditional mode to network and emanative mode. Derived from the Internet, virtual community, blog, instant communication tools and so on, known as the carriers of word-of-mouth, have become effective media for netizens to exchange information online. Through the media, netizens can exchange information freely simultaneously or asynchronously. The online word-of-mouth is network user's information exchange and discussions on some products or services by network media such as BBS, discussing areas for network products, blogs, and instant communication tools^[1]. Compared with traditional word-of-mouth, the online word-of-mouth has the features of extensiveness of spreading information, fast, large volume of information, savable, instant to receive, anonymous and transcend space and time^[2]. According to report of CNNIC, 53.9% network consumers express that they will check relative comments on the commodities when buying every single product. 78.9% of netizens will see the comments on the commodities. Over 90% netizens have made comments on the original shopping websites. Disclosed by the Report on China's 3rd Network Community Research, 61.7% community netizens will take net friend's opinion at first when buy some products. Additionally, from a report made by

Nelson Research Company, the 3rd "most trusted advertising method" is "consumer's opinions posted on the network", the average value of which is 61% through the globe. The importance of online word-of-mouth has become more and more obvious in consumer's network shopping of costumes, which has aroused lots of scholars' attention. Therefore, the word-of-mouth in virtual community becomes a hot topic for the network marketing of costumes.

At present, most of the theoretical studies on the online word-of-mouth concentrate on factor analysis of online word-of-mouth and the comparison of traditional and online word-of-mouth. Lead by Hennig-Thurau, demonstration studies mainly focus on the motivation of online word-of-mouth communication and the influence of online word-of-mouth on consumers' willingness of purchase. There are also a lot of studies on the modulating function of online word-of-mouth towards consumer's willingness of purchase. Based on Hovland, Janis and Kelly's communication persuasive theory, the essay demonstrates the opinion leaders and opinion leaders influence on consumer's purchase intention in the view of information origins.

II. LITERATURE REVIEW AND STUDY ASSUMPTION

A. The Brand Attitude of Apparel Consumer

Attitude is evaluation and feeling, held by a person, and behavior reflecting this to certain things and concepts, which enable people to form fairly consistent behavior to similar things^[3]. There are two generally accepted models in the study of consumer attitude: ABC model and Fishbein's multi-attribute model. The models both are based on the relation of consumer attitude and purchase intention.

a) Brand Orientation

Brand is very important in the marketing, because brand is considered to take on all the information of the products. And consumers judge the qualities of the products according to the brand, which stimulate the consumption. Kamins and Marks (1991)^[4] study indicated that high familiarity to brand and a good brand image would help improving the consumer's brand attitude and willingness to buy. Subodh Bhat and Srinivas K. Reddy

(1998)^[5] considered that brand image provided the consumers signals and message in the process of decision to buy, from which consumers inferred the quality of products and formed the behavior of consumption. Julie, Anthony and Dena(2006)^[6] indicated that brand image included consumers' answer to brand name, mark or impression, and standard for the quality of products, and affect the decision to buy. According those scholars' opinions, we put forward the hypothesis 1: in a virtual community, apparel consumer willingness to buy is consistent with its attitude to brand image.

b) *Product Orientation*

In the past, the research found that information of products can affect how the consumer to deal with information^[7]. Rao and Monroe(1988)^[8] also found that the knowledge to products can affect consumer's pricing to product. Laroche (1996)^[9] found that the consumer is more familiar with the products, and the consumer had a better confidence and attitude and a higher willing to buy to the products. So, consumers' cognition to apparel products plays a major role in decision to buy. When apparel consumer turns to product's brand information through the Internet, the information interact with the information that the consumer have had, to affect their intention to purchase. The cognition to apparel comes from the website-supplied product picture, size, material, style and so on. Based on the review we had, we put forward hypothesis 2: In a virtual community, the consumer's intention to purchase is consistent with consumer's attitude to apparel products.

B. *Online Word-of-mouth*

a) *Message Impression*

The message impression^[10] refers to that in normally situation, people would consider the accuracy rate of information provided by majority of people is higher than it provided by a small number of people. Based on this concept, individuals will be more trustful attitude to the views provided by the majority of people. Buehler and Griffin (1994)^[11] pointed out that the response of others will influence our revilement to the situations of ambiguous stimulus. Consistency with the groups will make people especially easy to get the interpretation that confirming their decision-making are the correct. If the stimulus ambiguity, the behavior of people will be more like to Herd situation^[12]. Leon Festinger (1957)^[13] raised the point that when you cannot determine the correct response, the appropriate behavior, or a correct concept, you are most vulnerable to the effects of others. This shows that when consumers visit the online word-of-mouth information of apparel Products, the attitude to these kinds of products will be affected by message impression. Therefore, the paper assumes that hypothesis 3a, hypothesis 3b: In virtual communities, if the Message Impression of Online Word-of-mouth is larger, the Degree of similarity between apparel brand orientation (H3a), product orientation (H3b) and online word-of-mouth message is higher.

b) *Opinion leaders*

"Opinion leaders" comes from the says put forward by Lazarsfeld and Berelson " the impact of mass media firstly impact opinion leaders, then influence more people by the opinion leaders". This is the so-called "two-stage flow propagation theory"^[14]. The theory suggests that: for the information and opinion transmitted by media, a part of the audience will accept new things positively, and then they spread them, these people are called "opinion leader". However, Philip p.m. defines "opinion leaders" as below: in a reference group, a person that influences other members of the group by the factors of special skills, knowledge, personality and other characteristics. In a lot of domestic and foreign researches, the identity characteristics of opinion leaders are mainly divided into three kinds: (1) demographic, (2) social attitude and attitudinal, (3) topic – oriented^[15]. In 1955, KaCi and raza who are America communication experts showed their research that at a lot of word-of-mouth dissemination aspect, the opinion leaders are the most critical aspect. Similarly, in virtual communities, opinion leaders collected a wide range of information by their professional knowledge, the ability of determine and Senior network experience. They express their opinion through communication with their followers. And at the same time, the People accepted the information reasoningly which are provided by opinion leaders^[16]. Austrian-American sociologist and psychologists Lazarsfeld and his assistant found some conclusion at the voter survey: in the election, many people changed their attitude through some effect of "opinion leaders". Therefore, this paper assumes that hypothesis 4a, hypothesis 4b: In a virtual community, about the transmission of online word-of-mouth, the higher credibility of opinion leaders, the higher degree of consistency in fashion-oriented between apparel brand orientation (H4a), product orientation (H4b) and word-of-mouth information.

C. *Research model*

Formulated by some relevant scholar and combine the characteristics of network consumers buying clothing. Based on communication persuasive theory, this paper put forward a model about the influence of online word-of-mouth to the attitude of apparel consumers, then effect their purchase intention^{[17][18]}. The paper begins the research from two aspects: message impression of online word-of-mouth and opinion leaders, use the orientation of consumers' orientation of brand and product as a mediating variable, research the impacts of online word-of-mouth to the apparel consumer's purchase intention. The research is divided into two parts: Pioneering assumptions and verify assumptions. The effect of online word-of-mouth on the attitudes of apparel consumer partly belongs to pioneering assumptions; the effect of apparel consumer's attitudes to Willingness of buying partly belongs to verify assumptions. Following the theoretical model for this study (Fig. 1):

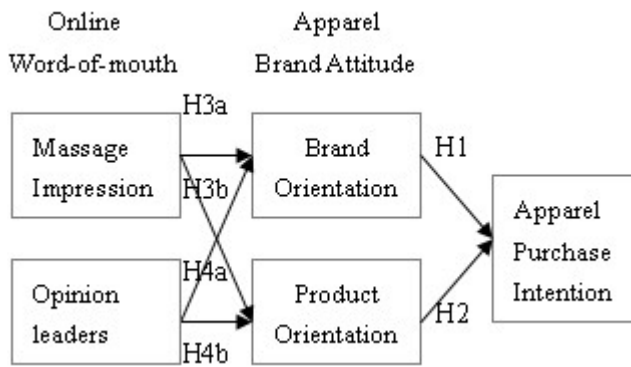


Figure1 Rresearch model 1

III. METHODOLOGY

A. Sample and procedure

Data for this study were collected through online and offline questionnaire approach to validate the model. Investigate lasted 2 months, 540 returned valid questionnaires were initially screened for usability and reliability from 612 responses, the percentage is 88.24%. Respondents are 20-29 year-old younger generation in hangzhou city^[19].

TABLE 1. PROFILE OF RESPONDENTS

Qualifications		Income per month		Occupation	
Education level	Percent age (%)	Income per month /RMB	Percentage (%)	Occupation	Percentage (%)
Less than middle school	8.88	Below 1000	24.0	Student	41.1
Senior/Vocational /Technical school	16.30	1000-2000	36.6	Enterprise employee	29.2
Junior college	22.22	2000-3000	20.3	government	9.26
University	48.15	3000-4000	11.1	Medical education	4.26
Master's degree/ above	4.45	Over 4000	7.78	Etc.	25.1
					1

The ratio of male and female is close to each other. In addition, it can be seen from questionnaire that the situation of the survey objects' online buying is: the students who have online buying experience accounted for 85% in the total number of consumers. Inside, the number of students customers who have already bought clothes online accounts for 42.48%, while others accounts for 57.52%.

B. Measurement Instrument

In order to ensure the reliability and validity of Questionnaires, this study is reference to the relevant literature and on the basis of the scale used by domestic and foreign scholars, associating with development of online word-of-mouth, to modify scales to fit the context of online apparel shopping. Table II outlines scales developed to operationally research constructs. Each of the variables shown in Fig.1 was measured with multiple items derived from prior literature and modified to fit the context of online apparel shopping. Respondents were

asked to indicate agreement with each statement in a measure using a five-point Likert-type scale (1, strongly disagree; 2, disagree; 3, neutral; 4, agree; 5, strongly agree). The measures related to each construct then were assessed using respondent perceptions.

TABLE II SOURCES OF SCALES

Variables	Reference	Original source
Message Impression	zhang zhiguang, jin shenghua (2008) ^[20]	W.N.Morris&R.S.Miller(1975) ^[21] ; H.B.Gerard,R.A.Wilhelmy&E.S.Conolley(1968) ^[22] ; M.Snyder&W.Ickes(1985) ^[23]
Opinion Leaders	Childers(1986) ^[24] ; Kenny K. Chan & Shekhar Misra (1990) ^[25]	Zaichkowsky (1985) ^[26] ; Jacoby(1971) ^[27] Maslach,Stapp&Santee(1985) ^[28]
Brand orientation	Keller (1998) ^[29]	/
Product orientation	Keller (1998) ^[29]	/
Purchase intention	Dodds,Monroe & Grewal (1991) ^[30]	/

IV. ANALYSIS AND RESULTS

There were two parts of our analysis. First, validity and reliability of the measurement model were tested by factor analysis and Cronbach's α . Second, the causal structure of the proposed research model was tested using structured equation modeling (SEM).

A. Reliability and validity test and correlation analysis

Churchill (1979) emphasized that items should be purified before factor analysis. Items with the value of Corrected item-total correlation (CITC) below 0.5 were dropped if scales' Cronbach's α increased. Principal components analysis with varimax rotation was used to test the efficiency and validity of SEM (Tabachnick and Fidell, 1996). With KMO value all above 0.7 and a significant value for Bartlett's test (Bartlett, 1954); the data was adequate for factor analysis (Tabachnick and Fidell, 1996). By the purification of the measuring item, analysis the survey date using SPSS13.0; the results are as follows (Table III).

TABLE III RESEARCH VARIABLES AVERAGE, STANDARD DEVIATION, CORRELATION COEFFICIENT AND RELIABILITY COEFFICIENT

Variables	M	SD	1	2	3	4	5
1 Purchase intention	3.343	0.830	0.783				
2 Massage Impression	2.387	0.871	0.158	0.852			
3 Brand orientation	3.275	0.757	0.352	0.151	0.801		
4 Opinion Leaders	2.792	0.813	0.159	0.311	0.167	0.783	
5 Product orientation	3.248	0.827	0.356	0.247	0.553	0.628	0.765

p* $<$ 0.05,p** $<$ 0.01,p*** $<$ 0.001

B. Structural model

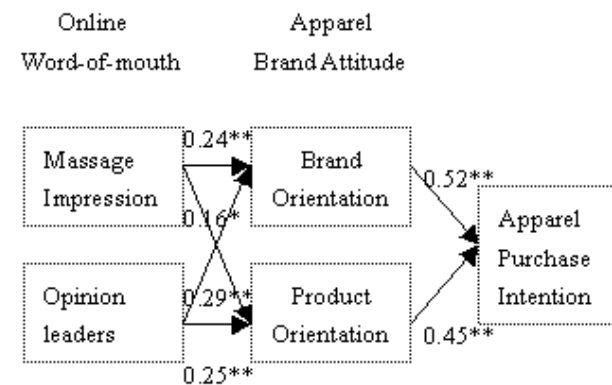
The causal structure of the research model was tested using SEM. 540 samples of data from respondents were analyzed using Amos 5.0 to test the SEM. The

goodness-of-fit indices for this model were shown in Table 4 and the test demonstrated reasonable fit between the data and the proposed structure model.

TABLE VI. FIT MEASURES FOR THE STRUCTURAL MODEL

Fit indicators	Criteria	Results
χ^2/df	<5(Wheaton et al,1977)	3.28
GFI	≥ 0.85 (Bentler,1992)	0.902
AGFI	≥ 0.85 (Bentler,1992)	0.870
IFI	≥ 0.9 (Bentler,1992)	0.916
CFI	≥ 0.9 (Bentler,1992)	0.915
RMSEA	<0.1 (Steiger,1990)	0.065

The results showed that not all of the parameters were significant in our study. χ^2/df is 3.28, this indicator fit for the statistical requirements. RMSEA is 0.065, According to Steiger^[31] of the opinion, if the RMSEA is less than 0.1 indicated good fit, lower than 0.05 indicated very good fit, and lower than 0.01 indicated very beautiful fit, so this indicator fit for the statistical requirements, too. In addition, according to Bentler^[32], when the CFI ≥ 0.90 , it's a great matching model as long as the GFI ≥ 0.85 . Therefore, the result of the theoretical model has a very good fit (Fig 2).



* Significant at 0.05, ** Significant at 0.01
Figure2. Rresearch model II

V. CONCLUSION AND IMPLICATIONS

This study explored the consumer attitude and intention of Internet apparel purchasing with regard to Online Word-of-mouth. Our work generated following research conclusions:

- Based on the communication and persuasion theory, discussed the effect of message source which contain two sides -- message impression and opinion leaders on consumer attitude and intention of Internet apparel purchasing, and then created a research model.
- Through checking the research model, perceived Brand orientation and Product orientation had most significant effect on apparel consumers' behavioral intention, and were the two important determinants of consumers' behavioral intention. Meanwhile, message impression and opinion leaders of online word-of-mouth via make function on apparel consumer attitude to impact purchase intention.

- In addition, the research on the survey also found that lower education has, the more vulnerable they will be to the message impression and the opinion leaders. So we can find that the lower education level of consumer, there will be more remarkable effect by Online Word-of-mouth.

The empirical findings presented in this study also provide helpful market strategies that online marketing personnel can use to enhance consumer willingness to purchase apparel online. Our study thus suggests that apparel firms should make efforts to improve reputation of apparel brand; after all, a good criticism comes from the product itself. E-commerce clothing managers would do well to focus effort on message impression and opinion leaders. In addition, under the network environment, the online word-of-mouth is the truest reflection of consumers' product evaluation; apparel enterprises should concern about the online word-of-mouth and get consumers' opinion of the brand to improve brand competition force constantly.

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