

The Impact of Social Marketing Means of E-commerce on Consumers' Clothing Buying Behavior

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ABSTRACT

Contemporarily, traditional e-commerce has reached the top after more than ten years of rapid development, but the disadvantage of poor shopping experience still maintains since its birth. In order to further increase sales, innovate marketing methods are pursued for online clothing stores. In this paper, we investigate the impact of social marketing means on consumers' clothing buying behaviour based on data collected from questionnaire survey. SPSS was utilized to process the data and validate the hypothesis. According to the analysis, e-commerce social marketing means will mostly have an impact on consumers' online clothing purchasing behaviour. Overall, these results provide ideas for online clothing sellers to reform their marketing methods and promote the further development of online clothing sales industry.

Keywords: Clothing sales, Social e-commerce, marketing, Buying behavior.

1. INTRODUCTION

Previously, human beings used to buy clothes in offline physical stores. After 2000, online stores emerged based on the rapid development of traditional electricity, causing a shock to offline physical stores. The differences and advantages of e-commerce from other forms of commerce: E-commerce helps to buy and sell labour and products in Internet commerce, and provides them with ideal e-commerce works in the sense of, i.e., the development of goods from suppliers to customers [1]. In the e-commerce model, anyone can be a seller, and sellers can advertise their own goods with the help of the public domain traffic of traditional e-commerce platforms. As a result, for consumers as buyers, the amount of product information received will increase rapidly. For the clothing industry, the convenient delivery of product information can quickly attract traffic. According to the theory that traffic is the core in the formula of sales = traffic × unit price × conversion rate, e-commerce has indeed brought great help to the development of the clothing industry.

However, after more than 20 years of rapid development, the traffic dividend brought by the growth of Internet users is shrinking year after year, and the

growth rate of traditional e-commerce is slowing down. In this context, online clothing stores need other advantages besides low price and convenient logistics to ensure their competitive advantages in order to cope with the impact of slowing growth brought by traditional e-commerce enterprises entering the "peak" period. Nowadays, with the development and innovation of Internet technology and the popularization of mobile terminals, the speed and scope of information dissemination has increased, and it is easier to obtain information about clothing. Plenty of online stores advertise their products at a very low cost while ensuring a price advantage by live-streaming goods delivery, launching groups, inviting price bargaining and other activities, or promoting on Micro-blog, Xiaohongshu, Tik Tok and other social platforms. The consumers' purchasing behaviour will be affected by the variation of the source of commodity information brought by the socialization of e-commerce.

Social e-commerce, namely, social e-commerce, was first proposed and defined by Yahoo in 2005 as a new form of e-commerce to purchase and promote products and services online with the help of social or network media [2]. A report illustrates some of the impact of social e-commerce on consumer behaviour. Instead of

focusing on driving traffic to sellers' sites, social commerce is aimed directly at shoppers on sites (e.g., Facebook and Instagram). It's a natural evolution of shopping and social media. Companies have found willing target audiences on social media sites, where people are more than happy to talk about their shopping experiences. While the buyer's decision-making process should not change, smartphones and social media have dramatically changed the role of the seller, which makes it easier to sell their products on sellers' social platforms [3].

Under such a new performance model, Xie et al, proposed that users' attitude towards social e-commerce websites/platforms and subjective norm perception are important factors affecting users' adoption behaviour of social e-commerce [4]. Different characteristics of the social e-commerce environment (function, perceived interactivity, etc.) can be regarded as a stimulus to jointly affect the psychological state of users, thus affecting their shopping behaviour and other social participation intentions [4]. Based on TAM and VAM models, Wu studied the influencing factors of social e-commerce and consumption behavior intention from the perspectives of feature perception and consumption perception of social e-commerce platform. It is concluded that consumers' feelings and impressions of the platform have an impact on consumer behavior [5]. Jiang et al believe that online shopping experience is a psychological state based on the consumption experience theory [6], which can be considered as a subjective reaction to the website. Consumers' cognitive and emotional processing of information from websites leads to the formation of impressions in memory. Members of the community will form their social experience with positive feelings, and consumer websites will also ensure good experience for users [6]. Weng explained that the acceptance degree of forwarding information would also make the consumers who forwarded information consider whether the cost one paid is greater than the benefit: the group purchase rate fluctuates within a certain range [7]. When the relationship update frequency of users increases, the communication between users becomes more frequent, and users will ignore the costs and benefits of message forwarding. Therefore, perceived value is an important factor affecting consumers' purchasing behaviour, and improving consumers' consumption experience is an important part of improving perceived value. Zhang et al. investigated the user experience factors of social e-commerce platforms based on regression model and found that the purchasing behaviour of social e-commerce users was significantly related to product quality, community influence, information quality, credit risk and hedonic motivation [8]. Based on interviews and laboratory experiments, Liu & Sutanto concluded that consumers prefer to share group-buying information with close friends through instant messaging [9]. When the information of recommendation reward is leaked to

others, the conclusion that recommendation reward as external monetary reward will have an impact on consumers' sharing motivation. According to practical analysis of social e-commerce cases, Liang & Turban, found the main difference between social e-commerce and traditional e-commerce [10]. Sellers can use the information obtained on social media to bring greater benefits and realize the conversion of information. It is not the unilateral output information of the seller in traditional e-commerce. Information exchange and conversion are the biggest innovation and value of e-commerce socialization.

The change of information transmission form brought by the change of marketing mode may bring about the change of consumers' consumption experience, thus improving consumers' desire to buy. Throughout the conclusions drawn by numerous researchers, it can be concluded that the factors influencing consumers' behaviour of social e-commerce include the perceived value brought to consumers by the platform, information quality, information sharing, information exchange and transformation. On this basis, following hypothesis are proposed: e-commerce social marketing means will mostly affect the frequency of online clothing purchase and order return rate of consumers. It provides practical and theoretical support.

The rest part of the paper is organized as follows. The Sec. 2 will introduce the questionnaire design, hypothesis and data processing based on SPSS. Subsequently, the analysis results from SPSS will be presented in Sec. 3 including frequency, correlation and regression analysis. Eventually, a brief summary is given in Sec. 4.

2. METHODOLOGY

2.1. Questionnaire

This study conducts data analysis based on questionnaire research. In this study, questionnaires were compiled and produced on the platform of Wenjuanxing. The questionnaires were immediately put into the online questionnaire mutual evaluation area, and the posters were distributed to wechat, QQ, campus Banbangjiang and other platforms for dissemination.

After the accomplishment of questionnaire designing, it was sent out and collected. After the accomplishments of collection, invalid questionnaires were removed, and the amount of questionnaire collected and the efficiency of questionnaire were counted. The questionnaire is divided into two parts: the first part is an investigation of the basic information of the respondents, mainly involving their gender, age, education background and whether they buy clothes online. The second part is the main part of the questionnaire, mainly investigating whether e-commerce social marketing will improve the

frequency of clothing consumption and reduce the return rate. The questionnaire consists of 23 questions.

2.2. Hypothesized

According to the definition of social e-commerce, this study will help forwarding clothing information and help, see spell group activities, e.g., the Xiaohongshu social platform push, live and short video, electronic commerce social clothing sales store online banking commonly used mode of transmission of commodity information, referred to as e-commerce platform of social marketing. Based on the purchasing interest and desire of users caused by social marketing on e-commerce platforms, this study will make assumptions about the factors of consumers' clothing purchasing behavior.

- Hypothesis H1a: Most of the social marketing methods of e-commerce platforms will have an impact on consumers' purchase frequency.
- Hypothesis H1b: Social marketing on e-commerce platforms has almost no influence on increasing the purchase frequency of consumers.
- Hypothesis H2a: Most of the social marketing methods of e-commerce platforms have an impact on reducing the rejection rate of consumers.
- Hypothesis H2b: Social marketing on e-commerce platforms has almost no influence on reducing the rejection rate of consumers.

2.3. Data analysis with SPSS

To process the data, SPSS software will be utilized to conduct correlation analysis and logistics regression analysis based on questionnaire data in order to test hypotheses. Specifically, a binary logistics regression model in logistics regression analysis, taking "Yes" in the question of the questionnaire as the dependent variable, "will help forward or boost interest in buying clothing", "will see spell group activities and interested in buying clothing", "because in the little red book and other social networking platform to see others forward clothing information but to purchase intention", "will to live or trill short video display clothing interested in buying", "will see live Anchors will have more purchase desire when they try on clothes on site" and "will have more purchase desire when they see the main character trying on clothes on site in the short video" are covariables to verify hypothesis H1.

The "yes" in the question of the questionnaire was taken as the dependent variable, "Will help forward or boost interest in buying clothing", "will see spell group activities and interested in buying clothing", "because in the little red book and other social networking platform to see others forward clothing information but to purchase intention", "will to live or trill short video

display clothing interested in buying", "will see live Anchors will have more desire to buy clothes when they try on clothes on site" and "will have more desire to buy clothes when they see the main character trying on clothes on site in short videos" as covariables to verify hypothesis H2.

3. RESULTS & DISCUSSIONS

3.1. Frequency analysis

According to the Table. 1, the proportion of females and males in the questionnaire was 61.3% and 38.7% respectively, indicating that females were more than males in the questionnaire. As seen from the Table. 2, there are more subjects aged 30-40 and over 40, accounting for 33.9% and 37.4%, respectively.

Table 1. Gender frequency analysis

	frequency	percentage
Male	202	38.7
Female	320	61.3
Sum	522	100.0

Table 2. Age distribution

	frequency	percentage
Under the age	12	2.3
At the age of 18	138	26.4
30 to 40 years	177	33.9
Above 40 years	195	37.4
Sum	522	100.0

3.2. Correlation analysis

As can be seen from correlation analysis parameters summarized in Table 3, only the correlation coefficient of Q14 and Q21 is 0.017, that of Q20 is 0.036, that of Q19 is 0.029, and that of Q18 is 0.022, indicating no significant correlation. Other variables have significant correlation, and all are positively correlated. The questions are given as following:

Q14: Would you be interested in buying it for help forwarding or assisting?

Q15: Will you be interested in buying clothes because you see a group activity?

Q16: Do you have purchase intention because you see clothing information forwarded by others on Xiaohongshu and other social platforms?

Q18: Do you buy clothes because you are interested in the clothes displayed in short videos such as live broadcast or Tiktok?

Q19: Do you have more desire to buy clothes when you see anchors trying on clothes on the spot?

Q20: Do you feel more motivated to buy clothes when you see a short video in which the main character tries on clothes?

Q21: Do you feel that the frequency of purchase has increased since you began to receive information about clothing products such as Live streaming, Xiaohongshu and Tiktok?

Q22: Do you feel that the number of products returned has decreased since you started receiving information about clothing products such as Webcast, Xiaohongshu and Tiktok?

Table 3. Correlation coefficients

	Q22	Q21	Q20	Q19	Q18	Q16	Q15	Q14
Q22	1							
Q21	.353**	1						
Q20	.313**	.521**	1					
Q19	.303**	.464**	.800**	1				
Q18	.272**	.456**	.638**	.659**	1			
Q16	.164**	.315**	.389**	.344**	.349**	1		
Q15	.269**	.283**	.305**	.284**	.249**	.402**	1	
Q14	.105*	.017	.036	.029	.022	.203**	.340**	1

*.p<0.05 ** p<0.01

3.3. Regression analysis

3.3.1. Clothing purchase frequency

Table. 4 gives the test of model fitting degree, the logarithm value of maximum likelihood squared (-2 logarithm likelihood) 520.549 follows the Chi-square critical value of 12.5916, and the maximum likelihood logarithm value passes the test. The values of Cox & Snell R square and Nagelkerke R square are 0.286 and 0.389, respectively. Besides, the closer their values are to 1, the better the fit degree is. However, from this point, the model fit degree seems to be poor, but in the binary regression model tested by logistic regression, this parameter is mainly used for comparison between models.

As can be seen from Fig. 1, the significance level of Q14(1) is 0.179, greater than 0.05, which does not meet the index requirements of significance test and has no

significant influence on dependent variable Q21(1).The significance level of Q15(1) is 0.005, less than 0.05, which has a significant influence on the dependent variable Q21(1) relationship, and Exp(B) value is 2.076, indicating that the probability of Q15(1) leading to a higher frequency of buying clothes is 2.076 times that of “no interest in buying clothes due to group activity”. The significance level of Q16(1) was 0.057, greater than 0.05, which did not meet the index requirements of significance test and had insignificant influence on dependent variable Q21(1). The significance level of Q18(1) is 0.001, less than 0.05, which has a significant influence on the dependent variable Q21(1) relationship, and Exp(B) value is 2.526, indicating that the probability of Q18(1) leading to a higher frequency of clothing purchase is 2.526 times that of “no interest in clothing displayed in short videos such as live broadcast or Douyin”. The significance level of Q19(1) was 0.615, greater than 0.05, which did not meet the index requirements of significance test and had insignificant influence on dependent variable Q21(1). The significance level of Q20(1) is 0.000, less than 0.05, which has a significant influence on the dependent variable Q21(1) relationship, and Exp(B) value is 4.268, indicating that the probability of Q20(1) leading to a higher frequency of clothing purchase is 4.268 times that of “there is no more desire to buy clothes because the video protagonist tries clothes on the spot in the short video”.

Table 4. Reports of the regression of Clothing purchase frequency

-2 logarithmic likelihood	Cox & Snell R square	Nagelkerke R square
520.549 ^a	.286	.389

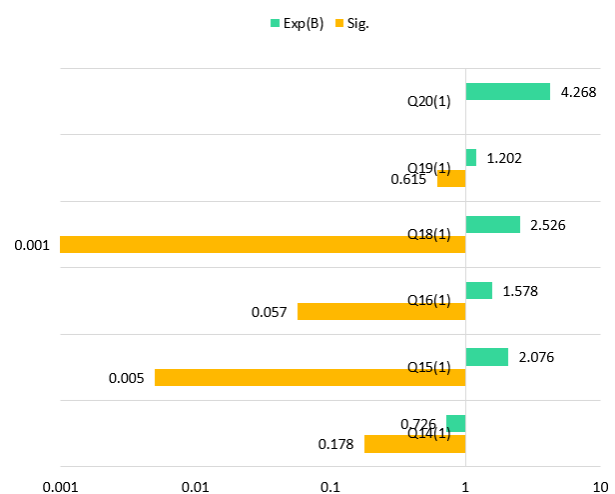


Figure 1 Summary of important model parameters of clothing purchase frequency.

To sum up, half of the factors set in this study about e-commerce social marketing will result in higher consumer purchase frequency, rather than have little impact on higher consumer purchase frequency. It shows that hypothesis H1a is true while hypothesis H1B is not true. Live fitting has a significant impact on the increasing frequency of consumers buying clothes.

3.3.2. Return rate of clothing purchase

Table 5 gives a test of model fitting degree. The logarithm value of maximum likelihood squared (-2 log likelihood) 618.036 follows the Chi-square critical value of 12.5916 and passes the test of maximum likelihood logarithm. The values of Cox & Snell R square and Nagelkerke R square are 0.137 and 0.186, respectively. In addition, the closer their values are to 1, the better the fit degree is. However, from this point, the model fit degree seems to be poor, but in the binary regression model tested by logistic regression, this parameter is mainly used for comparison between models.

Table 5. Reports of the regression of return rate of clothing purchase

--2 logarithmic likelihood	Cox & Snell R square	Nagelkerke R square
618.036 ^a	.137	.186

As presented in Fig. 2, the significance level of Q14(1) is 0.326, greater than 0.05, which does not meet the index requirements of significance test. The influence on dependent variable Q22(1) is not significant. The significance level value of Q15(1) is 0.000, less than 0.05, which has a significant influence on the dependent variable Q22(1) relationship, and Exp(B) value is 2.436, indicating that the probability of Q15(1) leading to the decrease of the withdrawal rate of clothing purchase is 2.436 times that of "there is no interest in clothing purchase due to the group activity". The significance level of Q16(1) was 0.500, greater than 0.05, which did not meet the index requirements of significance test and had insignificant influence on dependent variable Q22(1). The significance level of Q18(1) was 0.133, greater than 0.05, which did not meet the index requirements of significance test and had insignificant effect on dependent variable Q22(1). The significance level of Q19(1) was 0.237, greater than 0.05, which did not meet the index requirements of significance test and had insignificant influence on dependent variable Q22(1). The significance level of Q20(1) was 0.062, greater than 0.05, which had no significant effect on the dependent variable Q22(1) relationship.

To sum up, most of the e-commerce social marketing methods set in this study will not lead to the reduction of consumers' rejection rate of clothing purchase, but most of the methods will have an impact on the reduction of

consumers' rejection rate. On this basis, H2b should be accepted whereas H2a ought to be rejected.

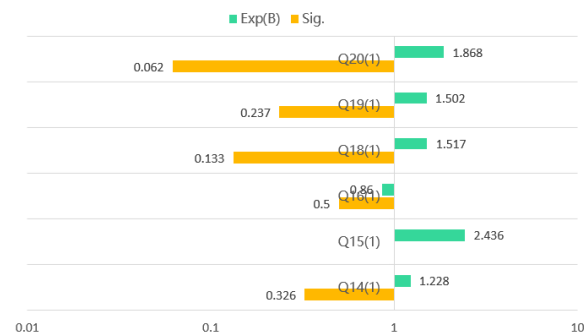


Figure 2 Summary of important model parameters of return rate of clothing purchase.

3.4. Limitation

As a matter of fact, nothing is absolute. Although the results of this study are generally in line with the actual changes brought about by the socialization of e-commerce, the questionnaire designed does not adopt the general model of scale plus factor analysis plus regression analysis commonly used in market behavior. In this case, the results may have errors and cannot be taken with a grain of salt. In addition, most of the questionnaire fillers are over 30 years old, and young people aged 18-30 years old have few reference samples, which may lead to errors due to the unbalanced age structure of the subjects. Moreover, in correlation analysis, except for dependent variables, most variables are significantly correlated. Consequently, serious multicollinearity will increase the variance of parameter estimation, which will easily enlarge the "interval" of prediction, making the prediction meaningless.

4. CONCLUSION

In summary, this paper investigates the impact of social marketing means of e-commerce on consumers' clothing buying behavior based on previous studies and questionnaire data. Specifically, questionnaires were designed to obtain the data needed for the study, and valid data was obtained through screening. Then, the data was imported into SPSS for correlation analysis. Based on the results, there was correlation between most variables. Finally, the binary regression model in logistic regression was used to draw the conclusions. According to the analysis, most of the marketing methods of social marketing on e-commerce platforms will have an impact on the increase in the frequency of consumers buying clothes (especially a significant impact on the increase in the frequency of consumers buying clothes). In addition, social marketing on e-commerce platforms has almost no effect on reducing the rejection rate of consumers.

With the continuous development of social e-commerce and new proposed electricity concept, this

study will also follow up study of electricity industry development trends, new mode analysis of all kinds of electricity produced by a new means of marketing, influence on consumers' behavior. Subsequently, it is feasible to find the most influential several means of marketing for merchants to provide the reference. Overall, these results offer a guideline for the improvement of marketing methods in the online clothing sales industry. In the future, we will continue to make efforts to improve the rigor and effectiveness of the research.

AUTHORS' CONTRIBUTIONS

These authors contributed equally.

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