

Empirical Research on Social Media and Consumer Online Shopping Decisions

Weifeng Jia^{1, a}, Kaixin Gong^{2, b}, Liping Yan^{2, c}

¹School of Economics and Management, Xi'an University of Posts & Telecommunications, Xi'an 710061, China;

² Modern postal college, Xi'an University of Posts & Telecommunications, Xi'an 710061, China.

^ajia_wf@163.com, ^b704311033@@qq.com, ^c857059806@qq.com

Abstract

In the era of rapid development of the Internet, the social media to speed up the spread of information. Consumers can use social media to understand the product and then online shopping decisions. To understand what factors related to social media affect the decision-making of consumers online shopping, based on the analysis of the status quo made four assumptions. Data were collected in the form of online questionnaires and analyzed by SPSS. The results show that social media security, social media positioning, commodity awareness, social media friends and other positive impacts on the consumer's shopping decisions. Explore the social media product promotion to introduce the important value of the review. The consumer online shopping decision-making has some reference value.

Keywords

Social Media; Online Shopping Decision; Consumer; Interactive Platform.

1. Introduction

According to the China Internet Network Development Statistics Report released by the China Internet Network Information Center (CNNIC) on the afternoon of August 20, 2018, the number of Chinese Internet users has increased by 802 million as of June 30, 2018, which is equivalent. In the total population of Europe, the Internet penetration rate reached 57.7%. In the era of rapid development of smartphones and 3G and 4G networks, the number of mobile Internet users has increased. As of June 2018, the number of mobile Internet users in China reached 788 million. The proportion of mobile phones accessing the Internet is as high as 98.3% [1]. China's Internet and mobile communications are developing rapidly, and various social media emerged in the lives of people. The mobile payment function driven by smartphones has become more and more popular with the improvement of mobile Internet access functions. The scale of mobile payment users has grown rapidly, and online shopping has become a common shopping method in life. Today's online social media platform is open, with a large amount of information and robust interactivity. People can search for information and get the information they need on social media. The rapid development of social media has gradually changed people's consumption patterns. Therefore, researching consumers' consumption decisions under the new situation of the rapid development of social media will help merchants to promote new products through new media better.

2. Theoretical analysis and research hypothesis

Social media refers to the platform for content production and exchange based on user relationships on the Internet. People share their opinions, experiences, and opinions on social media. The current social media mainly include Weibo, WeChat, Zhihu, QQ Space and so on. Social media now plays an important role in people's lives and has an increasing impact on people's lives. Consumer online purchase decision refers to the user searching for information on the Internet through Internet information technology to find the information that meets the user's own needs and analyzing the information. In the choice of many similar products that can meet their own needs, decide whether to purchase the product. Or which product to buy, and the whole process of post-shopping evaluation.

The consumer online shopping decision process refers to the process that a user must go through when purchasing a product or service, which shows the entire process from the initial determination of the user to the understanding of the product or service to the final implementation of the purchase decision. In this process, consumers need to undergo demand confirmation, information search, evaluation selection, purchase decision, and post-purchase evaluation. This article looks at online shopping decisions in the context of social media and analyzes the impact of the age of social media on online shopping decisions.

With the development of the web2.0 technology platform, various social platforms have sprung up, and the behaviors and roles of users in the network have changed. Users are not only users of network information, but also producers of information[3]. E-commerce has brought the era of online shopping, online shopping has flourished, and online shopping has gradually become an vital shopping method and lifestyle for modern people. 2017 China E-Commerce Market Data Monitoring Report released by China E-Commerce R&D Center [1]. Compared with the 5,155.6 billion yuan in 2016, it increased by 39.17%. As shown in Figure 1, the proportion of China's online retail market transaction volume to total retail sales of consumer goods continues to rise, online shopping gradually changes people's consumption habits, and promotion on social media is more stimulating consumer desires, such as online celebrity Weibo promotion, new live broadcasts, etc.

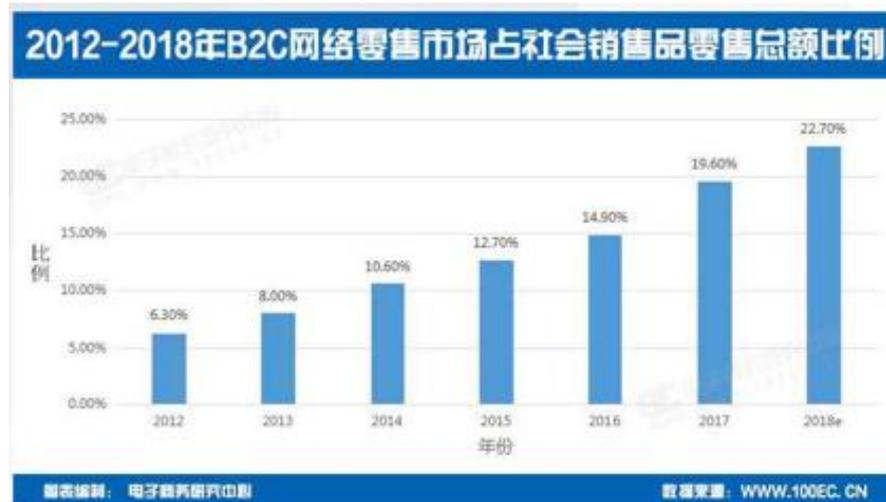


Figure 1 China's online retail market transaction size as a percentage of total retail sales of consumer goods

More and more companies are beginning to use social media such as Weibo and WeChat to spread and promote their product information, and even provide value-added services such as extracting users for product experience, thereby promoting consumers' comments on products and enhancing their Brand awareness and loyalty promote user purchases and attract more users to buy. There are also many scholars who research social platforms to promote consumer evaluation of products and brands. User reviews on social media platforms on the web largely influence consumer buying decisions [4].

The research object of this paper is an interactive platform on the Internet, a platform that allows users to publish and exchange opinions. If social media itself has a clear positioning and clear goals, understand the characteristics of the users that they are targeting, and be able to identify themselves well. The positioning and characteristics are presented, which can attract the target user group to use it, which may affect consumers' online shopping decisions. Therefore, this study proposes the following assumptions:

H1: The security of social media platforms has a positive impact on consumer shopping decisions;

H2: The positioning of the social media platform has an impact on consumers' online shopping decisions.

If the consumer fully understands and understands the relevant knowledge of the product and its related applications, on this basis, whether to purchase and how to make a decision. If consumers do not understand the product and their associated knowledge is incomplete, consumers cannot make purchasing decisions rationally. Fully understanding the product information can enhance consumers' perception of the product and reduce risk perception. Therefore, consumers' perception of products in social media affects consumers' online shopping decisions. Therefore, this study proposes the following assumptions:

H3: The level of detail of product information on social platforms has a positive impact on online shopping decisions.

The degree of intimacy, the frequency of interaction and degree of trust between users in social network media determine the strength of the relationship between user nodes. Users are easily influenced by others when making decisions. The increased trust between users increases the size of this effect. Just as in daily offline life, people's choices are affected by relatives and friends more than unfamiliar people. The impact is much higher. Therefore, this study proposes the following assumptions:

H4: The degree of intimacy of consumers in social media interactions affects their trust and will have a significant impact on their online shopping decisions.

When consumers need to buy a product, they will think about a product, and then use social media. Alternatively, product companies use social media to promote products to encourage consumers to purchase the product. And how to use social media to promote consumers better to make better online shopping decisions, you need to conduct an in-depth analysis.

3. Survey design

The purpose of the survey is to study the above four hypotheses, namely, the impact of social media security, social media positioning, product cognition, and social media friend reliability on consumer shopping decisions. Since this study is related to social media and online shopping, the relationship between social media and online purchase decisions was investigated in the form of an online survey. The questionnaire is shown in Table 1. Online questionnaires have the advantages of low cost, no geographical limitations, and high response rate.

The specific questionnaire is divided into two parts. First, the personal characteristics data is investigated, including basic personal factors (age, gender), educational background factors (educational level), frequent use of the Internet and social media platforms, and secondly for social media to consumers. Investigate the factors influencing the purchase decision, using the Likert scale, where 1 means "very disagree", two means "disagree", three means "unsure", four means "consent", and five means "very agree". The specific content of the questionnaire is shown in Table 2.

Table 1 Online questionnaire survey

Sample statistical characteristics	Category	Frequency	Percentage
Gender	male	203	41.2%
	Female	290	58.8%
Generation	18-22years old	35	7.1%
	23-27years old	280	56.8%
	28-35years old	163	33.1%
	36 years old or older	15	3%
Education	Secondary/high school and below	20	4.1%
	College	40	8.1%
	Bachelor	228	46.2%
	Graduate student/master	195	39.6%
	Doctor and above	10	2%
Time to use social media	≤ 1 year	15	3%
	1-2years	34	6.9%
	2-3 years	89	18.1%
	>3 years	355	72%
Use social media frequency every week	Less than once	19	3.9%
	1-3 times	35	7.1%
	4-7 times	64	13%
	8-10 times	40	8.1%
	10 times or more	335	68%
Whether to use social media when shopping	Yes	415	84.2%
	No	78	15.8%

Table 2 Questionnaire content

	Specific issues
Part 1	Your gender
	Your age group
	Your education
	Social media you have used or are using
	How long do you use the above social media?
	How much do you use social media per week?
	Will you use the above social media to get advice when you make a purchase?
Part 2	I think the social media used is accurate and clear.
	I think users use social media for the same purpose.
	I think social media has a better privacy protection system.
	I believe that social media will not arbitrarily disclose or misappropriate my personal information.
	I am satisfied with the security of this social media.
	Online comment users can share information .

If there is a lack of understanding of certain items, I will look for relevant information through comments from other consumers or seek help directly on social media.
Publishers who provide me with information about related products have more followers on this social media
Publishers who provide me with information about related products have a certain reputation and fame in society.
Information publishers who provide me with information about related products are familiar with the knowledge of the product
On social media, I am familiar with the information publisher.
In real life, I am familiar with the information publisher.
The information publisher has a similar background to me (hobbies, personality, education, etc.)
The information provided by the information publisher has sufficient width and depth, such as descriptions of parameters including price, location, function, and specific experience.
The information provided is intuitive, real video or audio
I think social media can meet the needs of users.
I think the members of this social media have a wealth of knowledge and experience of the relevant products I need.
I think the information posted on social media is real.
I think the members of this social media are sincere
I am willing to seek advice on this social media when I need to buy a product.
I am willing to conduct trading activities on this social media or related link sites.
I am willing to use this social media to find and buy the products I need.

4. Empirical test result

After collecting the questionnaire, the questionnaire should be screened. Because there may be a questionnaire that is tried to answer multiple times, and the online questionnaire will have an IP address, the IP address is used to judge whether the questionnaire is unique, and this can avoid the reliability error of the survey results. If the question is missed in the online questionnaire, the questionnaire cannot be submitted. Therefore, there will be no questionnaire that is invalid because of the missed answer, but there will be a questionnaire that is not carefully filled out. This should be filtered out by the implicit logic in the questionnaire. For example, the answer to the question is too fast, almost all the answers are selected by the same point, the contradiction before and after the response.

In this study, SPSS software was used to calculate and analyze the collected data. Perform statistical analysis on the data obtained to understand the overall situation of the data. As can be seen from Table 1, the male to female ratio is very close, with 41.2% of men, 58.8% of women, and slightly more women than men. In the use of social media, the popularity of different genders is similar. But relatively speaking, women's shopping desires, shopping needs, and demand for product communication will be higher than men's. Table 1 shows that most of the people surveyed are in the range of 23-27 years old, accounting for 56.8% of the total number. Of the education level, 87.8% are undergraduate and above, of which 46.2 are undergraduate. %, graduate students accounted for 39.6%. On the one hand, this situation is related to the sampling range. Since most of the people who are surveyed are from the researcher's network of people, they are closer to the education level and age

range, but on the other hand, they also reflect the current social situation. Media users are generally younger and highly educated. Young and highly educated people of this type have a strong sense of self and are easy to receive and use.

About the use of social media, from the length of exposure to social media, the frequency of using social media every week, and the three aspects of social media in online shopping. Table 1 shows that more than 72% of respondents have more than three years of experience in social media use, which is consistent with the rapid development and popularity of social media. As can be seen, 76.1% of the people surveyed used social media more than eight times a week, and 68% of them used social media more than ten times a week. Most people will make online shopping decisions through social platforms, or view product information through social media platforms during online shopping, as a reference for online shopping decisions, which accounted for 84.2% of the total respondents.

Next is a descriptive statistical analysis of the measured indicators. POS stands for social media positioning, SEC stands for the interactive place, CRP stands for mutual variable, HEL stands for a mutual help, ATR stands for authority, CPL stands for content detail variable, and TUA stands for trust attitude variable. Descriptive statistics are mainly used to study the minimum, maximum, mean, variance, standard deviation, skewness and kurtosis of observed variables. The maximal minimum value reflects the difference of the respondents, while the information such as skewness and kurtosis reflects the distribution of the sample. When the skewness is greater than 3 or the kurtosis is greater than 8, the variables may be non-normally distributed. When the kurtosis coefficient is greater than 20, some variables also exhibit a non-normal distribution. The specific analysis results are shown in Table 3 below.

Table 3 Descriptive statistical analysis results of observed variables

Index	N	Min	Max	Mean	Standard deviation	Variance	Skewness	Kurtosis
	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics
POS1	493	1	5	3.45	1.518	1.643	-0.192	-0.387
POS2	493	1	5	3.18	1.62	2.358	-0.417	-0.653
SEC1	493	1	5	2.39	1.282	2.303	0.496	-0.428
SEC2	493	1	5	2.33	1.536	2.624	0.594	-0.477
SEC3	493	1	5	2.38	1.518	2.306	0.484	-0.457
CRP1	493	1	5	3.55	1.438	2.609	-0.441	-0.339
CRP2	493	1	5	3.47	1.395	1.954	-0.474	0.025
CRP3	493	1	5	3.89	1.336	1.784	-0.691	-0.221
CRP4	493	1	5	3.47	1.392	1.936	-0.51	-0.48
CRP5	493	2	5	3.74	1.299	1.688	-0.58	-0.524
HEL1	493	2	5	4.3	1.096	1.201	-0.794	0.357
HEL2	493	2	5	4.49	1.087	1.181	-1.136	1.524
ATR1	493	2	5	3.86	1.241	1.541	-0.471	-0.117
ATR2	493	2	5	3.54	1.453	2.11	-0.219	-0.894
ATR3	493	1	5	2.89	1.373	1.884	0.069	-0.575
ATR4	493	1	5	3.52	1.481	2.193	-0.441	-0.444
REL1	493	1	5	2.18	1.454	2.114	0.587	-0.297
REL2	493	1	5	2.09	1.547	2.392	0.545	-0.548
REL3	493	1	5	2.69	1.45	2.101	-0.321	-0.923
CPL1	493	1	5	3.33	1.477	2.181	-0.248	-0.818
CPL2	493	1	5	3.34	1.481	2.193	-0.226	-0.803
CPL3	493	1	5	3.64	1.391	1.934	-0.546	-0.186

CPL4	493	1	5	3.19	1.483	2.201	-0.132	-0.892
CPL5	493	1	5	3.94	1.391	1.935	-0.791	0.07
TUA1	493	1	5	3.54	1.407	1.981	-0.569	-0.129
TUA2	493	1	5	3.69	1.338	1.789	-0.608	-0.221
TUA3	493	1	5	3.03	1.341	1.56	-0.013	-0.494
TUA4	493	1	5	3.18	1.249	1.846	-0.092	-0.205
TUA5	493	1	5	3.04	1.359	1.795	0.028	-0.464
TUA6	493	1	5	3.37	1.34	1.567	-0.348	-0.275
PIN1	493	1	5	3.7	1.252	1.621	-0.701	0.591
PIN2	493	1	5	3.62	1.273	1.659	-0.658	-0.237
PIN3	493	1	5	3.64	1.288	1.643	-0.618	-0.248

It can be seen from the table that in the sample of observed variables, there are interdependence 5, mutual aid 1 and 2, and authoritative 1 and 2, and the maximum values of other observed variables are all 5 minimum values, This shows that the respondents have a big difference in the answers to the same question in the questionnaire. When the skewness coefficient and the kurtosis coefficient are close to zero, the sample is normally distributed. The mean, standard deviation, skewness, and kurtosis in the study table, the maximum skewness is -1.136, and the maximum kurtosis is 1.524, which are below the critical value. Looking at the mean, the maximum is 4.49, the minimum is 2.09, the mean is at a medium level, and the standard deviation is also small, with a maximum of 1.087 and a minimum of 1.62. These data show that the measured indicators of the observed variables are close to a normal distribution with a small amplitude.

As shown in Table 4, the positioning of social media is significantly positively correlated with consumers' online shopping decisions. The security of social media platforms is also positively correlated with consumer online shopping decisions and is significant. Hypothesis 1 and Hypothesis 2 are verified. The correlation coefficient between social media positioning and online shopping decision is 0.438. It shows that the accurate positioning of social media will have a greater impact on consumers' online shopping decisions. The correlation between the security level of social media platforms and online shopping decisions is small, only 0.192, indicating that consumers' online shopping decisions will be affected by the security and security of social media, but the impact is relatively small.

See Table 5, the level of detail and trust of interactive content on social media, that is, the cognitive ability of the consumer is positively correlated with the consumer's online shopping decision, and is significant. Hypothesis 3 is verified. Looking at the correlation coefficient, the correlation level of the interactive content on the social platform and the trust coefficient and the correlation coefficient of the online shopping decision are respectively 0.673 and 0.511. Which indicates that if the consumer obtains sufficient useful and even specific information through the social media platform, the consumption Those who generate trust in the information they receive will also make online purchase decisions.

It can be seen from Table 6 that the intimacy of consumers on social media and the authority of interactive objects are positively correlated with consumer trust and online shopping decisions, and are significant. Hypothesis 4 is verified. Because the correlation coefficient is very high, if the interactive objects on social media have many followers or are experts in a certain field, experienced, or interactive objects are close to consumers, then consumers will A sense of trust in the interactive object is that the information it shares is trustworthy and credible, which in turn affects online shopping decisions.

Table 4 Correlation analysis of social media positioning, security , and online shopping decisions

		TUA	PIN
POS	Pearson Correlation	0.372**	0.438**
	Sig (2-tailed)	0.000	0.000
	N	493	493
SEC	Pearson Correlation	0.431**	0.192**
	Sig (2-tailed)	0.000	0.000
	N	493	493
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 5 Analysis of the interaction between interactive content and trust, online shopping decision-making on social media

		TUA	PIN
CPL	Pearson Correlation	0.673**	0.511**
	Sig (2-tailed)	0.000	0.000
	N	493	493
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 6 Correlation analysis of interactive objects and trust degree and online shopping decision on social media

		TUA	PIN
ATR	Pearson Correlation	0.452**	0.369**
	Sig (2-tailed)	0.000	0.000
	N	493	493
REL	Pearson Correlation	0.581**	0.352**
	Sig (2-tailed)	0.000	0.000
	N	493	493
**. Correlation is significant at the 0.01 level (2-tailed).			

5. Conclusion

This paper investigates the influence of social media on consumer online shopping decision-making through a questionnaire survey and people of different ages. The study found that social media security, social media positioning, product content detail, and reliability of social media friends are positively affecting consumers' shopping decisions. The detail of content on social media is the strongest factor. The detail of product content directly affects the consumer's awareness of the product. The more detailed the product information on social media, the more comprehensive the consumer's perception of the product is. Conducive to consumers making online shopping decisions. This also tells companies to pay attention to the comprehensive reliability of the product information promoted, and also shows the information providers on the social platform to pay attention to the details of the content of the product information.

There are still many shortcomings in the research of this paper. The design of the questionnaire is not comprehensive enough to be improved, and some factors have not been proposed and analyzed. These shortcomings need to be improved in later research.

Acknowledgements

Shaanxi Soft Science Research Program (2018KRM040).

References

- [1] The 42nd Statistical Report on the Development of China's Internet Network. China Economic Report, 2018.
- [2] Xia Wang, Chunling Yu, Yujie Wei. Social Media Peer Communication and Impacts on Purchase Intentions: A Consumer Socialization Framework [J] . Journal of Interactive Marketing, 2012,26 (4) .
- [3] China Electronic Commerce Research Center. 2017 China E-Commerce Market Data Monitoring Report [EB/OL].
- [4] Huang Liwei, Li Deyi. Information Recommendation in Social Media[J]. Journal of Intelligent Systems, 2012, 7(1): 1-8.
- [5] Lan Yongping. An Empirical Study of the Impact of Online Comments on Customers' Willingness to Buy [J]. Modern Business Industry. 2012(5).
- [6] Guan Yujuan, Huang Guangqiu. Analysis of Consumers' Willingness to Share Knowledge in Virtual Community [J]. China's circulation economy, 2014 (11).
- [7] Wang Lirong. Research on the Influence of Psychological Distance on Online Shopping Decisions [D]. China Agricultural University, 2014.