

A study of the influence of health information attention in short videos on the purchase intention of pregnant women's skincare products

Baixi Zhao

Information Technology,
Guangdong University of Finance
and Economics, Guangzhou,
Guangdong, 510000, China
E-mail: 2287971658@qq.com

Abstract:

At a time when digital marketing is booming, short video marketing has become an important channel and way of e-commerce marketing for pregnant women's skincare products. As a special consumer group highly sensitive to product safety, the attention of pregnant women to the health information of skincare products in short videos has become one of the key factors affecting their consumption decisions. Based on the SOR model, the author constructed a research model on the effect of health information attention on the purchase intention of pregnant women's skincare products in short videos and analysed the relationship between skincare health information attention, perceived safety value and purchase intention in short videos by conducting a questionnaire survey and empirical analysis. The study concludes that the content of product ingredient information and product efficacy ingredient information in short videos of pregnant women's skincare products has a positive influence on consumers' perceived safety value. The content of product ingredient information and product safety ingredient information in short videos of maternity skincare products has a positive influence on consumers' willingness to buy. Moreover, consumers' perceived safety value has a significant positive effect on purchase intention.

Keywords: short video marketing, health information attention, maternity skincare products, purchase intention, SOR model

1. Introductory

Along with the return of the number of newborns,

the mother and baby market ushered in a new consumption cycle. China's mother and baby market is

expected to reach 8,914.9 billion yuan in 2027, of which, maternity skincare products, as a segment, is growing significantly. The development of short videos on maternity skincare products is particularly striking, and the tendency of Chinese consumers to buy mother and baby products online in 2025 is high, especially with the content e-commerce growth rate of 76% (MAT 2411) [1]. Consumers demand a high level of safety from mother and baby products, but there are still some products of substandard quality in the market. In this scenario, the influence of different types of health information in short skincare videos on the purchase intention of pregnant women is the question to be explored in this paper.

2. Literature review

Some domestic scholars have studied the development of pregnant women's skincare products industry, the effect of short video marketing and consumers' buying willingness. On the selection of skincare products for pregnant women, Sihui Yu pointed out that pregnant women should be clear about whether beauty cosmetics contain harmful ingredients, such as vitamin A and salicylic acid [2]. In the study of the pregnant women's skincare products industry, Chanran Wang found that early consumers have a low understanding and trust of beauty cosmetics for pregnant women, but the market potential is large, reflecting consumers' demand for product information [3]. In terms of short video marketing, Chunran Pei proposed that the focus of short video content marketing in the beauty category is to produce high-quality video content that fits user needs. And he proposed three elements that influence consumers' purchase intention: first, the shopping environment, such as the ease of use of the website; second, the elements of the goods, such as product quality, price, and the emotions contained; and third, the consumer characteristics, such as brand identity [4].

Some foreign scholars research the content and source of short videos and buying willingness. On short video content marketing. Chen, Z., Zhang, Q. argued that among all video features, taste and content have the greatest influence on consumers' purchase intention [5]. In terms of source credibility. Kirkpatrick, C. E., and Lawrie, L. L. experimentally confirmed that doctors are generally

perceived to be more credible and valid as sources of information than their peers, and that autonomy-supportive videos posted by doctors improve attitudes towards relevant information and towards pap smears [6]. This suggests that the expertise and source credibility of the publisher of a short video can effectively influence consumers' willingness to purchase.

Most of the existing studies at home and abroad are on the development of pregnant women's skincare products industry, short video marketing and buying willingness. However, there is a relative lack of research on the effect of health information attention and pregnant women's purchase intention in short videos. In view of this, this study constructs a health information attention scale from three dimensions: product ingredient information, product efficacy information, and product safety information, takes perceived safety value as a mediating variable, and analyses the influence of health information attention on pregnant women's purchase intention of skincare products in short videos by using the SOR model, which enriches the field of research on short video marketing, and provides insights into the short video marketing of pregnant women's skincare products.

3. Model construction and research hypotheses

3.1 SOR model

The Stimulus-Organism-Response (SOR) model is widely used to analyse and explain consumption intentions and decision-making behaviour. Stimulus (S) is the various factors in the environment that affect the individual, organism (O) represents the physiological and psychological characteristics of the individual, and response (R) is the response or behaviour of the organism to the stimulus. This paper is based on the SOR model, S is the attention of pregnant consumers to the health information of products in the short video of skincare products, including product ingredient information, product efficacy information, product safety information; O is the perceived safety value of skincare products health information generated by pregnant consumers in watching the short video, and R is the consumer's willingness to purchase.

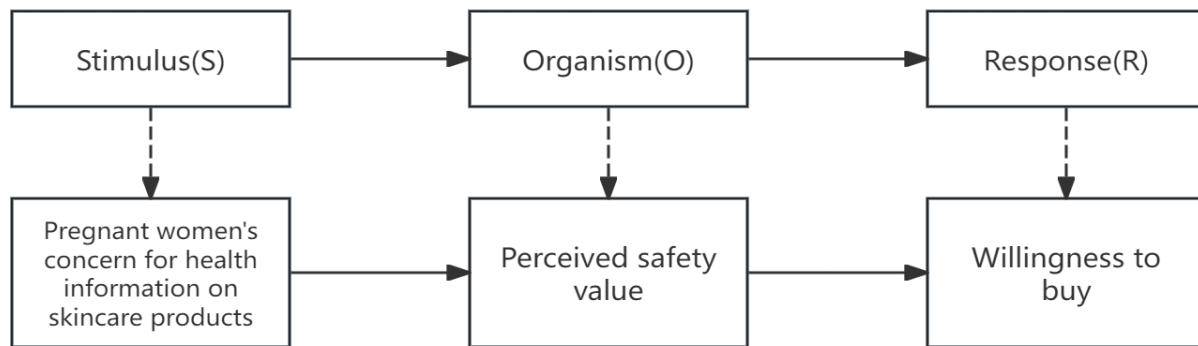


Figure 1 Theoretical model

3.2 Variable design

(1) Health Information Attention

In this paper, pregnant women's health information concern refers to how much pregnant women pay attention to the product health information content in short skincare videos. Xiaobing mentioned that pregnant women's skincare products should pay attention to five points: first, raw materials; second, formulations; and third, quality standards. Fourth, the frequency of purchase of pregnant women's cosmetics is mainly seasonal; fifth, the products are mainly moisturising and nourishing [7]. Based on the above literature and information from the Guangdong Provincial Drug Administration and other sources, this paper divides pregnant women's health information concerns into three dimensions: product ingredient information, product efficacy information, and product safety information.

(2) Perceived security value

Xiaoying Cai defined perceived value as the consumer's perceived preference and comprehensive evaluation of a product based on the existing subjective impression of the purchased goods [8]. Based on this, this study introduces the perceived safety value of a product based on pregnant consumers' safety-seeking characteristics and the safety of the product. That is, it is the perceived safety preference and comprehensive evaluation of the health information of the product after watching the short video of skincare products for pregnant consumers.

(3) Willingness to buy

Willingness to buy was first proposed by Aaker in 1979

as a subjective tendency that is highly correlated with a product or brand [9]. Dodds builds on Aaker's suggestion that willingness to buy is the likelihood that a consumer will make a purchase [10]. Chunran Pei suggests that willingness to buy is a willingness in the field of marketing, which is a consumer's thoughts or attitudes that precede and to a certain extent determine purchasing behaviour [4]. In this study, according to Pei Chunran, consumer purchase intention is defined as the subjective purchase intention formed by pregnant consumers on a psychological level for a skincare product in a short video.

3.3 Research hypotheses

Based on this, the study proposes the following hypothesis.

H1: Product ingredient information has a significant positive effect on the perceived safety value of pregnant consumers.

H2: Product efficacy information has a significant positive effect on pregnant consumers' perceived safety value.

H3: Product safety information has a significant active influence on the perceived safety value of pregnant consumers.

H4: Product ingredient information has a significant positive effect on the purchase desire of pregnant consumers.

H5: Product efficacy information has a remarkable active influence on the buying desire of pregnant consumers.

H6: Product safety information has a significant positive effect on the purchase desire of pregnant consumers.

H7: The perceived safety value of pregnant consumers has a significant positive effect on their purchase intention.

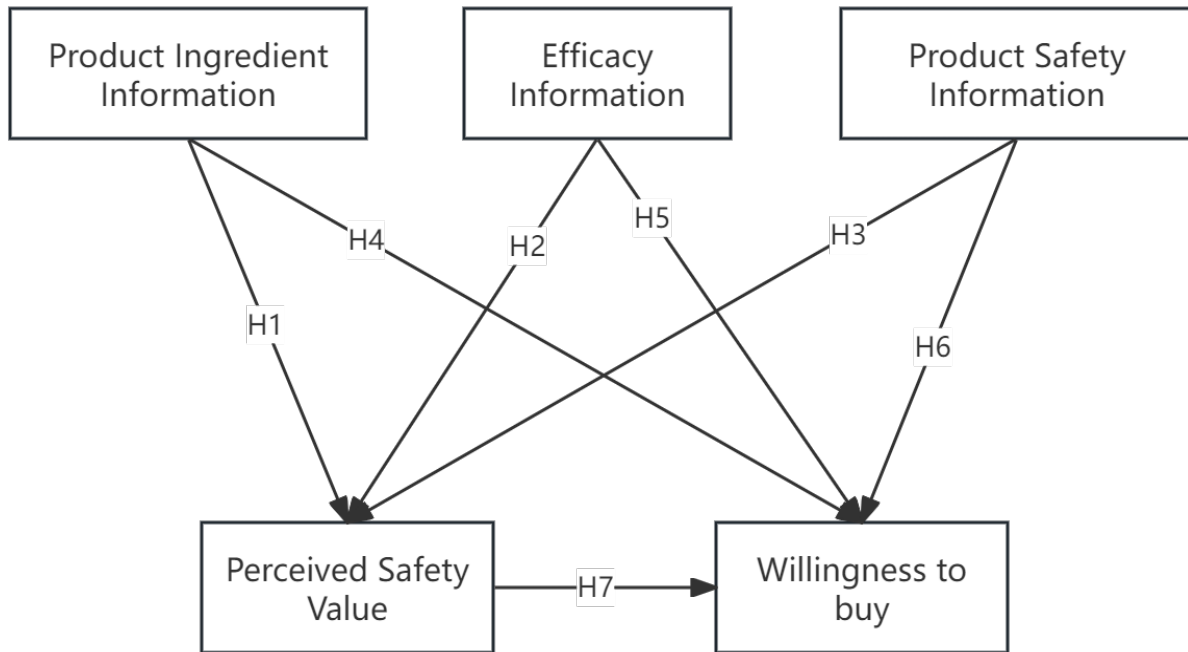


Figure 2 Model of the influence of health information attention in short videos on the purchase intention of pregnant women's skincare products

4. Questionnaire design and data collection

4.1 Questionnaire design

The study was conducted using a questionnaire. A five-point Likert scale was set up to measure the independent variable (health information concern about product ingredients, product efficacy, and product safety), the mediator variable (perceived safety value), and the dependent variable (willingness to purchase), with options 1 to 5 representing "strongly disagree" to "strongly agree". Since the measurement of health information concern is seldom involved in existing studies, this paper, based on the collection of existing literature and information from the Guangdong Provincial Drug Administration, designed a health information concern scale to measure health information concern in three dimensions, namely, product ingredient information, product efficacy information, and product safety information, with a total of 16 question

items. The perceived safety value scale mainly refers to Yang Guang's scale [11], with a total of 3 question items. The willingness to purchase scale mainly refers to the scale of Wongkitrunrueng et al. [12], with 5 question items.

4.2 Data collection

The research object of this study is pregnant users who have purchased skincare products by watching short videos in the past 2 years. Questionstar online questionnaire was distributed through WeChat and other social platforms, 267 copies were recovered, 201 valid questionnaires were obtained through screening, and the validity rate of the questionnaire was 75.28%. This paper was empirically analysed with the help of SPSS27.0.

5. statistical analysis

5.1 Descriptive statistical analyses

Table 1 Basic information about the respondents

variant	(Questionnaire) options	frequency	per cent	average value	(statistics) standard deviation
(a person's) age	18-25 years	24	12 per cent	2.32	0.80
	26-30 years	107	53 per cent		
	31-35 years	52	26 per cent		
	36 years and over	18	9 per cent		
careers	Schoolchildren	7	4 per cent	3.11	1.55
	Enterprise staff	97	48 per cent		
	Public institutions/civil servants	39	19 per cent		
	A private firm (PRC usage)	16	8 per cent		
	Agriculture workers	10	5per cent		
	Freelancer	30	15 per cent		
	Others	2	1 per cent		
Average monthly income	Less than 3000 yuan	14	7 per cent	2.50	0.79
	3000-5999 yuan	96	48 per cent		
	6000-8999 yuan	68	34 per cent		
	9000 yuan and above	23	11 per cent		
	(grand) total	201	100 per cent		

The survey results show that the respondents' age range is mostly 26 to 30; their occupation is mostly employee of enterprises; and their monthly income is concentrated in the range of 3,000-5,999 yuan (Table 1).

5.2 Reliability analysis

The reliability analysis aims to determine whether the sample data are consistent and reliable. The Cronbach's alpha coefficient of reliability was tested for five variables: product ingredient information, product efficacy information, product safety information, perceived safety value and purchase intention, and the larger the coefficient value, the stronger the reliability. The results showed that the

Cronbach's alpha coefficient of the product composition information scale was 0.814, the Cronbach's alpha coefficient of the product efficacy information scale was 0.821, the Cronbach's alpha coefficient of the product safety information scale was 0.859, the Cronbach's alpha coefficient of the perceived safety value scale was 0.712, and the Cronbach's alpha coefficient of the willingness-to-purchase scale was 0.838. The Cronbach's alpha coefficients of the five component scales are all greater than 0.7. The Cronbach's alpha coefficient for the reliability analysis of the total scale = 0.919 > 0.7, indicating that the designed scale has a good consistency and high reliability for all items, and can be further analysed empirically (Table 2).

Table 2 Overall reliability analysis

Reliability statistics		
Cronbach Alpha	Cronbach Alpha based on normalised terms	item count
0.918	0.919	24

5.3 Validity analysis

Validity analysis aims to test the validity and authenticity of the sample data. In this paper, KMO and Bartlett's test

of sphericity were conducted on the five variable question items, and the results of the analysis showed that the KMO value of the total scale was 0.895>0.6, and the value of Bartlett's test of sphericity was 2131.161, which

indicated that the questionnaire had good validity (Table 3).

Table 3 Effectiveness analysis

KMO and Bartlett's test		
KMO Number of Sample Suitability Measures.		0.895
Bartlett's test of sphericity	approximate chi-square	2131.161
	(number of) degrees of freedom	276
	significance	0.000

5.4 Regression analysis

Perceived Security Value

(1) Regressivity Analysis of Independent Variables and

Table 4 Regressivity analysis of independent variables and perceived security value

Coefficient a								
modelling	Unstandardised coefficient			Standardised coefficient Beta	t	significance	covariance statistics	
		B	standard error				tolerances	VIF
1	(Constant)	1.588	0.322		4.933	0		
	Product Ingredient Information	0.219	0.066	0.288	3.326	0.001	0.523	1.91
	Product Efficacy Information	0.221	0.081	0.216	2.723	0.007	0.622	1.607
	Product Safety Information	0.038	0.076	0.042	0.502	0.617	0.552	1.812
a Dependent variable: perceived security value								

The results show that: the standardised regression coefficient of the independent variable product composition information on perceived safety value in the model is 0.288 ($t=3.326$, $p=0.001$), which indicates that product composition information has a significant positive effect on perceived safety value, the more product composition information, the higher the perceived safety value, and the results confirm that Hypothesis H1 is confirmed. The standardised regression coefficient for the independent variable, product efficacy information, on perceived safety value is 0.216 ($t = 2.723$, $p = 0.007$). It indicates that product efficacy information has a significant positive effect on

perceived safety value, the more product efficacy information, the higher the perceived safety value. Therefore, Hypothesis H2 is supported by these findings. However, the standardised regression coefficient for the independent variable, product safety information, on perceived safety value is 0.042 ($t = 0.502$, $p = 0.617$), indicating no significant impact of product safety information on perceived safety value. Consequently, Hypothesis H3 is not supported. (Table 4).

(2) Regressivity analysis of independent variables and purchase intention

Table 5 Regressivity analysis of independent variables and purchase intention

mod- elling		Unstandardised coefficient		Standardised coefficient Beta	t	significance	covariance statistics	
		B	standard error				tolerances	VIF
1	(Constant)	1.022	0.337		3.037	0.003		
	Product Ingredient Information	0.255	0.069	0.311	3.698	0.000	0.523	1.91
	Product Efficacy Information	0.12	0.085	0.109	1.414	0.159	0.622	1.607
	Product Safety Information	0.174	0.079	0.18	2.199	0.029	0.552	1.812
a Dependent variable: willingness to buy								

The results show that: the standardised regression coefficient of the independent variable product composition information on purchase intention in the model is 0.311 ($t=3.698$, $p=0.000$), indicating that the product composition information has a significant positive effect on purchase intention, the more information about the product composition, the higher the purchase intention, and the hypothesis H4 is established; the standardised regression coefficient of the independent variable product efficacy information on buying inclination is 0.109 ($t = 1.414$, $p =$

0.159), showing that product efficacy information has no notable effect on buying willingness, hypothesis H5 does not hold; independent variable product safety information on buying aspiration standardised regression coefficient of 0.18 ($t = 2.199$, $p = 0.029$), proving that product safety information on buying desire has a remarkable active influence, the more product safety information, the higher the buying desire, the hypothesis H6 holds (Table 5).

(3) Regression analysis of perceived security value and buying desire

Table 6 Perceived security value and purchase intention regressivity analysis

mod- elling		Unstandardised coefficient		Standardised coefficient Beta	t	signifi- cance	covariance statistics	
		B	standard error				tolerances	VIF
1	(Constant)	1.616	0.268		6.021	0		
	Sensing the value of security	0.545	0.066	0.506	8.28	0	1	1
a Dependent variable: willingness to buy								

The results show that the standardised regression coefficient of the independent variable perceived security value on buying desire is 0.506 ($t=8.28$, $p=0.000$), which shows that perceived security value has a prominent active im-

pact on buying willingness, i.e., the higher the perceived security value is, the higher the buying inclination is, and therefore assuming H7 is established (Table 6).

Table 7 Summary of hypothesis testing

serial number	research hypothesis	hypothesis testing
H1	Product ingredient information has a significant active impact on pregnant consumers' perceived safety value	set up
H2	Product efficacy information has a significant positive effect on pregnant consumers' perceived safety value	set up

H3	Product safety information has a significant active impact on perceived safety value for pregnant consumers	untenable
H4	Product ingredient information has a remarkable active influence on the buying inclination of pregnant consumers	set up
H5	Product efficacy information has a notable positive effect on pregnant consumers' buying inclination	untenable
H6	Product safety information has a remarkable positive effect on the buying desire of pregnant consumers	set up
H7	Pregnant consumers' perceived safety value has a significant active effect on their buying desire	set up

6. Conclusions and recommendations of the study

The results of the analyses show that: product ingredient information and product efficacy information have a remarkable influence on perceived safety value; product ingredient information and product safety information have a remarkable influence on purchase intention. Perceived safety value has a remarkable influence on purchase intention (Table 7).

According to the above results, the short video marketing strategy for pregnant women's skincare products has the following insights: 1. The professional visual presentation of product composition and safety information should be strengthened in short videos for pregnant women's skincare products to improve consumer trust. 2. The empirical presentation of efficacy information should be strengthened to enhance the perceived safety value of the product.

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