Research Article
The Influencing of Net Negative Evaluations on Consumers' Purchase Intention of Genetically Modified Food

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Abstract: The net negative evaluations play an important role in consumers' purchase intentions of GM food especially for Chinese. This study investigates the impact paths of net negative evaluations influence consumers' purchase intention of GM food. Specially, this study introduces two mediators-subjective norms and perceptual difficulties, which respectively reflect the external social impact and consumers' internal subjective judgment. Based on sample data of 317 consumer questionnaires in Beijing, this study tests those impact paths with Structural Equation Modeling (SEM) method. Empirical test shows neither the perceived difficulties ($\beta H = 0.089$ $p = 0.076$) nor mediating path ($\beta H = -0.038$ $p = 0.298$) is significant, that means net negative evaluations and perceptual difficulties can't directly influence the consumers' purchase intention of GM food, this result is different from former theories such as the Theory of Planned Behavior. And interestingly, the results show that the subjective norms ($\beta H = 0.757$ $p<0.001$) can act as a mediator in the impact path from net negative evaluations to consumers' purchase intention of GM food. Then further discussions are made to analyze these results. Finally, some suggestions are given with a combination of Chinese current conditions and situations of GM food.

Keywords: Genetically modified food, perceptual difficulties, purchase intention, subjective norms, the net negative evaluations

INTRODUCTION

In recent years, with the rapid development of Genetically modified food (GM food) technology, this kind of special food shows huge economic and social benefits by containing many advantages such as high-yield, low-cost and so on. In China, the government vigorously supports and attaches great importance to the development of GM food. In the latest 2015 government central first document, the policy once again stressed the necessity to continue to strengthen the science popularization of the GM technology. To a great extent, the government's attitude can decrease purchase risks consumers perceived as well as putting consumers into an atmosphere that they are informed adequately about GM food, the consumers' purchase confidence can be largely improved (Bawa and Anilakumar, 2013; Sedigheh *et al*., 2013). But in todays' China, most Chinese consumers still hold the opinion that eating GM food may lead a great many potential security problems such as genetic pollutions, allergic reactions and so on (EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA), 2013), those problems terribly hinder the consumers from accepting or buying GM food, or even there still exists a phenomenon of turn pale at the mention of a tiger when some Chinese consumers speak of GM food, the GM food and GM food technology arouse huge controversies while consumers attitude are quite different from each other (Kim *et al*., 2014). It is no surprise that consumers hold different opinions about GM food (Zhang and Guo-Liang, 2015). And the consumers' perception is the key to develop the new special products' selling like the GM food (Gastón *et al*., 2011). Studying the consumers' purchase intention and analyzing the influencing factors has become a hot and essential field.

When talking about the influencing factors of consumers purchase intention, the first-thinking answer must be the consumers' them selves demographic statistics characteristics. As for GM food, at present, scholars have concluded those demographic factors through empirical research. These influencing factors can be summed up as: gender, occupation, age, the attitude, subjective norms and perceived behavioral controls (three elements of the Theory of Planned Behavior), consumers' awareness of risks and benefits and so on. Some scholars presented some new theoretical perspectives, for example, the perceptual difficulties should also be included into those demographic factors (Spence and Townsend, 2006), but they did not give an empirical research.

In addition to the consumers' individual characteristics, the external factors should not be

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overlooked. Especially in today's China, as the Internet technology develop quickly with each passing day, the network changes people's life habits as well as their consumption concept especially for GM food consumption (Yuan-Fei, 2012). Since Chinese consumers are still in lower cognitive level on GM food, the network has become an important channel for them to obtain some relevant information (Xiao-Dong *et al.*, 2015).

Considering the circumstance of GM food in China, there exist more net negative evaluations rather than the positive, so in theory, It means a lot to study the impact path from the net negative evaluations rather than the positive to consumers' purchase intention, but it still needs a further empirical discussion about whether it influences or not and how the effect mechanism exists.

Based on the former scholars' researches, we introduce the net negative evaluations and other two factors-subjective norms and perceptual difficulties (external social impact and internal subjective judgment) to explore how these three internal and external factors influence the consumers 'purchase intention of GM food. In addition, we attempt to term subjective norms and perceptual difficulties as two mediators in the impact path from the net negative evaluations to consumers' purchase intention for an in-depth research. Then based on a sample of 317 consumers' questionnaires data in Beijing, the study analyze and validate the hypotheses proposed and the influence mechanism by using the structural equation modeling method. The conclusions in this study can provide an empirical foundation for future policy and theoretical discussion.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

The net negative evaluations and purchase intention: In today's times of the Internet, the media network has a significant influence on consumers' purchase intention (Philip, 1997), the reasons can be concluded to two points: Firstly, through the Web-based social networks, consumers get a large number of different attitudes, feelings, evaluations from other people in active or passive ways (Sarbjeet and Jagpreet, 2015). The network evaluations which mainly include some adverse functional information spread quickly among the consumers, those net negative evaluations may strongly hinder the consumers' purchase of them since most of the consumers lack cognizance of the GM food technology (Kim and Kwak, 2015), whether they purchase or not depends a lot on the information they obtained on the Internet. Secondly, the network make the two-way communication realized among the consumers (Wuyts *et al.*, 2010), it provide a net community where consumers can share evaluations and exchange consumption experience of GM food, the net negative evaluations of GM food will spread easier and quicker in the groups of consumers (Ji-Dong, 2010). In

a word, the net negative evaluations influence the formation about consumers' purchase intention of GM food (Helm, 2000; Mueller *et al.*, 2011).

H1: The net negative evaluations have a negative influence on consumers' purchase intention.

Subjective norms and purchase intention: Consumers' purchase intentions of GM food are largely influenced by their friends and organizations, especially people who are important to them (Xu, 2012). Some theories such as Rationality Behavior Theory (Fishbein and Ajzen, 1975), the Theory of Planned Behavior (Ajzen, 1985) defines this social pressure as subjective norms. Due to some factors such as social roles, reliance to their friends, the compelling orders from some organizations they belonged to, the subjective norms form and then influence the consumers' awareness and attitude toward products, consumers' purchase intention changes from hence (Schierz *et al.*, 2009). In China, there still exist many controversies about GM food. When consumers' select GM food, they may pay attention to the quality factors (nutrient, flavor, safety, texture, etc.) more cautiously (Krishna *et al.*, 2012). Consumer's purchase intention tend to be more vulnerable to the side effects of different perspectives: whether or not people who are important to them will buy GM food and whether or not the important people will support them to buy GM food (Wenting and Guangrong, 2008). In addition, there exists a universal phenomenon that in the course of product awareness and purchase, Chinese consumers will be largely influenced by the herd, the follow psychology and group pressure (Jia-Xin, 2013). That is to say, when purchasing GM food, a such special new kind of food, Chinese consumers' purchase intention are more likely to be determined by their subjective norms. Scholars like Vemeir and Verbeke (2008) and Shao-Jun (2011), have concluded through empirical research that in the food consumption, the subjective norms have a positive influence on consumers' purchase intention.

H2: The subjective norms have a negative influence on consumers' purchase intention.

Perceptual difficulties and purchase intention: When consumers feel that they have no choice but to buy GM food and this buying behavior is inevitable, that means consumers have formed perceived difficulties of GM food (Spence and Townsend, 2006), the perceived difficulties compel consumers to form purchase intention of GM food and therefore lead to purchase behavior. As an influencing factor of consumers' purchase intention, perceptual difficulties can reflect the GM food' marketing coverage and marketing influence to a certain extent.

Introducing the perceptual difficulties as a variable is determined by the GM food' consumption status quo in China, the reason can be concluded to two points: Firstly, the economical and social profitable benefits of

GM food drive the government to focus on developing GM food technology as well as increasing popularization of science and education, the government makes large-scale scientific explanations and promotion to change the customers' misperceptions of GM food, those policies can largely protect the GM food's further improvement in Chinese market. In a word, market trends, idea education, pressure from the government compel the Chinese consumers to form perceptual difficulties of GM food, thereby limiting their purchase intentions. Secondly, the previous researches about the purchase intention of GM food were mainly focused on consumer demographic statistics characteristics, such as the attitude, perceived behavioral control, perceived risk and profit and so on. But compared to those individual factors, the perceptual difficulties may play a more important role since now Chinese consumers are under great pressure from the government, market and so on. In a word, perceptual difficulties seem to influence Chinese consumers' purchase intention more effectively and it worth deeper exploration.

H3: Perceptual difficulties have negative influence on consumers' purchase intention.

Views in this study: The impact path from net negative evaluations to consumers' purchase intention may need some mediating factors. That is because: network is just a mean of information dissemination, it seems far-fetched to deem that the net negative evaluations can directly determine consumers' purchase intentions. Considering the net negative evaluations may firstly change consumers and their friends' cognition about GM food and then change their purchase behavior, we introduce two mediators: subjective norms and perceptual difficulties, which may stand for the level of consumers and their friends' cognition about GM food. Why we conclude the two: subjective norms and perceptual difficulties may possibly have a mediating influence on the impact path from net negative evaluations to consumers' purchase intention? The specific reasons are as follows:

In regard to the mediator subjective norms, two convictive reasons can be proposed: Firstly, the prevalent social media age comes due to the rapid development of the Internet technology, it changes every person's life, people communicate and make friends with more people through micro blog, we chat and some other chat tools on the Internet. With more friends consumers are making with, a larger and larger scale of influencing people will be formed, the scale of influencing people has been expanded to some public figures, friends from the Internet and so on. The Internet has opened a whole era of social network for each person. That means: Other than consumers' friends surrounding, more and more peoples pan the limit of space, time, culture, language and make

important influence on consumer's purchase intention of GM food (Guo, 2014). What's more, compared to some traditional media, the Internet provides the comprehensive information more quickly to consumers and their friends, it builds a two-way communication bridge which facilitates the communication and opinions exchange between consumers and their friends. Through the network, consumers' subjective norms are continually established and updated and then their positive or negative cognition about GM food are formed.

As for the mediator of perceptual difficulties, it is because network is an important way of the government and relevant departments to release information. Through the network, consumers directly feel more pressure from the government and market and then form the perceptual difficulties of GM food and eventually producing purchase intention. In addition, the network sets up convenient and efficient communication platforms between the government and consumers. The government timely grasps the information about consumers' purchase behaviors so as to continuously improve policies and measures; those can produce a new and continuous round of purchase pressure on consumers. Thus perceptual difficulties compel consumers' to purchase effectively and continuously.

H4: Subjective norms act as a mediator in the impact pathfrom the net negative evaluations to consumers' purchase intention of GM food.
H5: Perceptual difficulties act as a mediator in the impact pathfrom the net negative evaluations to consumers' purchase intention of GM food.

Based on the above assumptions, we establish the conceptual model shown in Fig. 1.

MATERIALS AND METHODS

Data collection: In the first month of 2015, electronic questionnaires are distributed to respondents who live in Beijing. The network delivering, mail and online inquiry are the main way to collecting information. Two parts are divided in this research. One is the pre-research, 53 samples for testing the design are got and the reliability and validity of the questionnaire are tested with these samples. The second part was the formal survey, 1500 questionnaires are sent out and 331 copies were recycled, of which 317 are valid questionnaires. The effective recovery rate is 21%, which is consistent with the Tinsley and Tinsley (1987) and Comrey (1988) requirements of the sample's size. Therefore, this sample can be conducted for follow-up study. The descriptive information of the sample is as shown in Table 1.
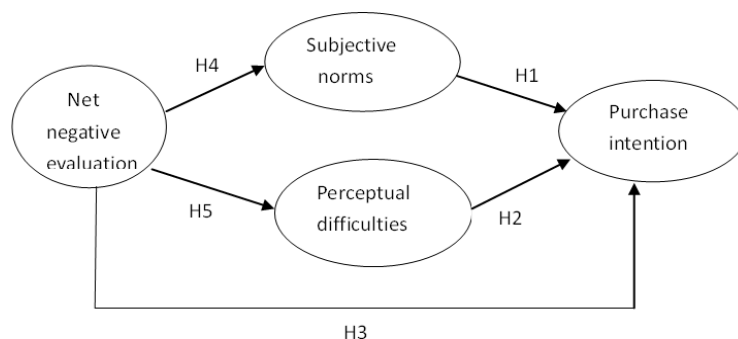
Fig. 1: A conceptual model between net negative evaluations and consumer's purchase intention

Table 1: Descriptive statistics of the sample

Property	Classification	Number	Percentage (%)
Gender	Male	125	39.4
	Female	192	60.6
Age	15~25 years old	41	12.9
	26~35 years old	163	51.4
	36~45 years old	90	28.4
	46~60 years old	21	6.6
	61 years old and above	2	0.7
The degree of education	High school and below	9	2.8
	College degree	46	14.5
	Bachelor degree	218	68.8
	Master degree or above	44	13.9
Monthly income level (Unit: RMB)	<1500	13	4.1
	1500~3000	19	6.0
	3000~4500	48	15.1
	4500~6000	100	31.6
	>6000	137	43.2
Monthly consuming level (Unit: RMB)	<1500	33	10.4
	1500~3000	112	35.3
	3000~4500	99	31.2
	4500~6000	43	13.6
	>6000	30	9.5

Measures: This study mainly involves four variables: the net negative evaluations, subjective norms, perceptual difficulties and purchase intention. Combined with some domestic and foreign mature scales as well as the present situation of GM food consumption in China, the variables were selected and the scale was finally formed. The following is the measurement index of each kind of variable in the scale.

Among them, Net negative evaluations mainly refers to the scale of Brée (1993), Mascarenhas and Higby (1993) and Moschis (1987) with 3 measurement indexes:

- I often search on the network for the evaluation of GM food
- I would be very concerned about the network evaluation of GM food
- The network evaluation is an important reference value on my purchase intention of GM food.

Subjective norms mainly refers to the scale of Spence and Townsend (2006), with 4 measurement indexes:

- The people I value will agree to buy GM food
- The people whose opinion I respect will buy GM food
- The people I value will agree with me to buy GM food
- The people whose opinion I respect will agree with me to buy GM food.

Perceptual difficulties mainly refer to the scale of Chen (2007) with 2 measurement indexes:

- Even if I do not want to buy GM food, I think I can't avoid the GM food
- I found it difficult to avoid GM food when I buy food (felt unable to avoid buy GM food).

Purchase intention mainly refer to the scale of Spence and Townsend (2006) and Chen (2007), with 3 measurement indexes:

- If necessary, I will consider buying GM food
- In the similar products, the possibility for me to buy GM food is very large
- My purchase intention of GM food is strong.

Choose of the model: Since the study focuses on the discussion about the complex relationships of four variables: the net negative evaluations, purchase intention, subjective norms and perceptual difficulties the Structural Equation Models (SEM) were formed. The SEM consists of two theoretical models, the first one is used to define linear relationship between the potential independent variables (the net negative evaluations, subjective norms and perceptual difficulties) and the potential dependent variables (subjective norms, perceptual difficulties and purchase intention); The second one is a measurement model, which defines the linear relationship between the potential variables and observed variables. The model equations are shown as follows:

Structural equation: $\eta = \zeta + \eta\,\beta + \gamma\,\xi$ (1)

The measurement equation about the endogenous variable (the dependent variable):

$y = \lambda\,\eta + \varepsilon$ (2)

The measurement equation about the outside distribution variables (the independent variable):

$x = \lambda\,\xi + \delta$ (3)

In these equations,
η = The vector type
γ = The return type
ξ = The vector type
β = The return type

In the measurement of equation about the internal and external distribution variables, λ is the return type, ε and δ is the Variance/Covariance types.

DATA ANALYSIS AND RESULTS

Factor analysis:
Reliability and validity testing: The scale's reliability and validity testing can effectively reflect the accuracy of the scale and whether the measurement exists deviations or not. To ensure a certain degree of reliability and validity of the scale, this variables setting were directly borrowed from mature scales, some of them were slightly modified. A pre-research of 53 questionnaires was carried out to further ensure the appropriateness of variable selection, the test results are shown in Table 2 and 3. As the results show, the Cronbach Alpha coefficients are all greater than 0.7, which indicate the scale has very good reliability. Through the reliability and validity testing, we can infer that this scale can effectively measure these four variables and ensure the further analysis on variables' relations.

Factor analysis: A respectively full-testing factor analysis procedure was done. The test results of the three (the net negative evaluations, subjective norms and perceptual difficulties) show that the KMO sample adequacy test is 0. 802, spherical Bartlett test p value is 0.000, that indicates these three are suitable for factor analysis, the factor analysis result is shown in Table 2; In the sufficiency test of purchase intention: KMO sample adequacy test is 0. 752, spherical Bartlett test p value is 0.000, that indicates the purchase intention is suitable for factor analysis, factor analysis result is shown in Table 3.

These four variables' each factor loading values are greater than 0.7 and the characteristic values are greater than 1. That indicates that the variable measurements have good convergent validity.

Model testing:
The overall fit of the data: Goodness of fit tests for the SEM model are shown in Table 4, the chi square

Table 2: The analytical results of factors--the network effects, subjective norms and perceptual difficulties (N = 53)

Classification (Cronbach α) and measurement items	Factor 1	Factor 2	Factor 3
Net negative evaluations (0.825)			
I would be very concerned about the net negative evaluations of GM food	0.880	-0.006	0.047
The net negative evaluations are important reference value on my purchase intention of GM food	0.836	0.131	-0.026
I often search on the network for the evaluation of GM food	0.765	0.310	0.020
Subjective norms (0.958)			
The people whose opinion I respect will agree with me to buy GM food	0.130	0.934	-0.080
The people I value will agree with me to buy GM food	0.110	0.931	-0.068
The people I value will agree to buy GM food	0.144	0.926	-0.081
The people whose opinion I respect will buy GM food	0.141	0.924	-0.084
Perceptual difficulties (0.789)			
Even if I do not want to buy GM food, I think I can't avoid the GM food	0.017	-0.042	0.924
I found it difficult to avoid GM food when I buy food (felt unable to avoid buy GM food)	0.019	-0.148	0.910

Table 3: The analytical result of purchase intention (N = 53)

Classification (Cronbach α) and measurement items	Factor
Purchase intension (0.821)	
If necessary, I will consider to buy GM food	0.918
In the similar products, the possibility for me to buy GM food is very large	0.951
My purchase intention of GM food is strong	0.941

Table 4: The results of model test of goodness of fit

	X2	Df	X2/Df	AGFI	NFI	IFI	CFI	RMSEA
Standard			<5	>0.8	>0.9	>0.9	>0.9	<0.08
Fitting results	148.292	49	3.026	0.886	0.956	0.970	0.970	0.080

Table 5: Relative path test of SEM model

			Estimate	S.E.	C.R.	P	Whether through the test
SN	<---	NNE	0.616	0.115	5.335	***	Yes
PD	<---	NNE	-0.041	0.090	-0.448	0.654	No
PI	<---	NNE	0.089	0.050	1.771	0.076	No
PI	<---	SN	0.757	0.039	9.555	***	Yes
PI	<---	PD	-0.038	0.036	-1.041	0.298	No

SN: Subjective norms; NNE: Net Negative Evaluations; PD: Perceptual Difficulties; PI: Purchase Intention; ***Significant at the 0.001 Significance level; S.D.: Standard Error
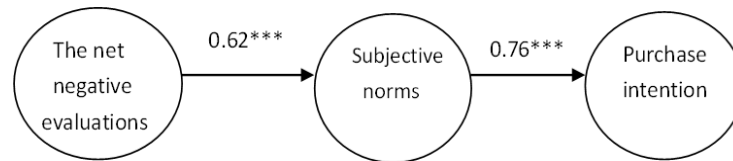

Fig. 2: SEM model path diagram

fitting index and degree of freedom is more than 3.026, AGFI and NFI values are 0.886 and 0.956, IFI and CFI value is 0.970, RMSEA is 0.080, that indicates the model fitting effect is good.

Structural equation model: The SEM model was established by using software analysis tools of AMOS17.0 and the SPSS18.0. The next step was to analyze the relationship between these four variables by using the model proposed. In AMOS17.0, we establish the SEM path as the concept model shows and import the SPSS18.0-generated data. The indicator test results are shown in Table 5, the revised conceptual model is shown in Fig. 2. As the Table 5 shows, H1(βH1 = 0.757 C.R = 19.555 p<0.001) and H4 (βH4 = 0.616 C.R = 5.335 p<0.001) are confirmed, the results show that subjective norms can make a direct influence on consumers' purchase intention of GM food, but the net negative evaluations can't except the factor of subjective norms mediates, while H2 (βH2 = -0.038 C.R = -1.041p = 0.298), H3 (βH3 = 0.089 C.R = 1.771 p = 0.076) and H5(βH5 = -0.041 C.R = -0.448 p = 0.654) aren't confirmed, that means the perceptual difficulties can't make a direct influence or a mediator in this impact path from the net negative evaluations to consumers' purchase intention of GM food.

CONCLUSION AND DISCUSSION

This study explores the relationship between the net negative evaluations and consumers' purchase intention, while introducing two mediators--subjective norms and perceptual difficulties. Though empirical analysis based on a sample of 317 consumers in Beijing, we conclude that: among the five hypotheses, H1 (βH1 = 0.757 C.R = 19.555 p<0.001) and H4 (βH4 = 0.616 C.R=5.335 p<0.001) are confirmed, which means that subjective norms have a positive influence on consumers' purchase intention of GM food and it can also act as a mediator in the impact path from the net negative evaluations to consumers' purchase intention of GM food. While (βH2 = -0.038 C.R = -1.041 p = 0.298), H3 (βH3 = 0.089 C.R = 1.771 p = 0.076) and H5 (βH5 = -0.041 C.R = -0.448 p = 0.654) aren't confirmed, illustrating that perceptual difficulties can't influence consumers' purchase intention of GM food. Therefore, the conclusion of this study can be summarized as two points:

- The net negative evaluations can't directly but can positively influence through the mediator subjective norms on consumers' purchase intention of GM food
- The subjective norms can have a direct influence on consumers' purchase intention of GM food, but the perceptual difficulties can't, which is contrary to the previous studies proposed (Spence and Townsend, 2006).

In terms of the subjective norms' direct influence on the consumers' purchase intention, the reason can be related to the following and herd mentality, which exist universally in Chinese consumers. The purchase behaviors of organizations, experts and friends can play an important reference role on consumers' purchase intention, or even consumers may just follow them blindly, especially on the acceptance of GM food-a kind of new and controversial food. Most consumers don't have a sufficient and correct knowledge base for GM food; they are more likely to be influenced by the group pressure from friends and organizations they value. In addition, consumers' social role and status can
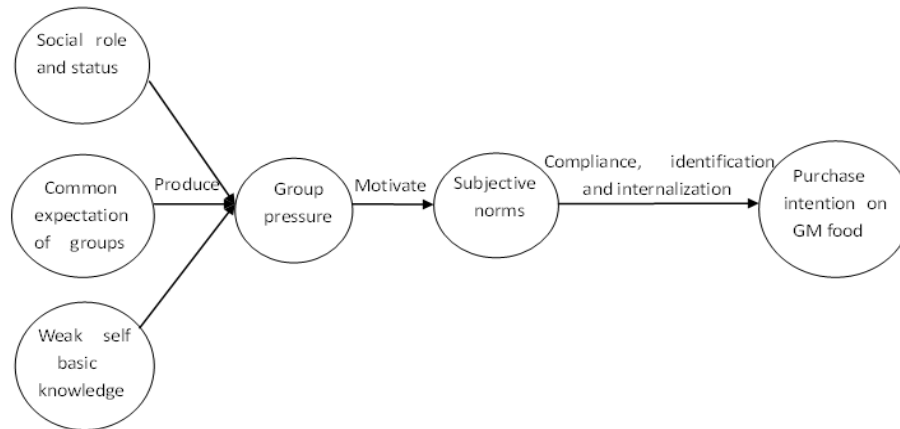
Fig. 3: A process that subjective norms influence consumers' purchase intention of GM food

also drive consumers' formation and change in purchase intentions. The group pressure of which consumers perceive greatly compels them form subjective norms. Therefore consumers form the purchase intention passively or spontaneously. The process that subjective norms influence consumers' purchase intention of GM food can be shown by Fig. 3.

The net negative evaluations and perceptual difficulties can't influence consumers' purchase intention of GM food directly; this result can be explained by a certain relationship with China's current status of GM food. Specifically there are two reasons: Firstly, Although as we know, China started studying the GM food and GM food technology at a relative early time, but it develops with such a slow pace, most consumers are still unable to form a scientific and comprehensive understanding of GM food, the popularization and implementation efforts from some related policies still need to be strengthened. The GM food cannot impose purchase pressure on or constitute effective perceptual difficulties to consumers, that is to say, GM food cannot influence the consumers' purchase choices or hinder them from purchasing the traditional food, so it's reasonable that consumers prefer to choose traditional food instead of GM food; Secondly, the interpersonal relationship among the Chinese consumers generally presents a kind of mode called pattern of difference sequence (Xiao-Tong, 2007). Chinese consumers term themselves as the core and the relationship gradually alienates outwards, they generally own a high sense of responsibility to protect their family members connected by blood. So when Chinese consumers obtain those net negative evaluations, they may immediately build up the wall for their relatives to be away from the harmful food they perceived, then a lower purchase intention on GM food manifests and may last for long time.

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REFERENCES

Ajzen, I., 1985. From Intentions to Actions: A Theory of Planned Behavior. In: Kuhl, J. and J. Beckman (Eds.), Action Control: From Cognition to Behavior. Springer-Verlag, Berlin, Heidelberg, pp: 11-39.

Bawa, A.S. and K.R. Anilakumar, 2013. Genetically modified foods: Safety, risks and public concerns-a review. J. Food Sci. Technol., 50: 1035-1046.

Brée, J., 1993. Les Enfants, la Consommation et le Marketing. Presses Universitaires de France, Paris.

Chen, M.F., 2007. Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. Food Qual. Prefer., 18: 1108-1021.

Comrey, A.L., 1988. Factor-analytic methods of scale development in personality and clinical psychology. J. Consult. Clin. Psych., 56: 754-761.

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA), 2013. Scientific opinion on dietary reference values for energy. EFSA J., 11: 3005.

Fishbein, M. and I. Ajzen, 1975. Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. Addison-Wesley Publishing Co., Reading, Mass.

Gastón, A., V. Paula, R. Germán and G. Ana, 2011. Are consumer profiling techniques equivalent for some product categories? The case of orange-flavoured powdered drinks. Int. J. Food Sci. Tech., 46: 1600-1608.

Guo, S., 2014. An Empirical Study on the Influence of Consumers' Personality on Subjective Norms and Network Purchase Intentions. Chongqing Technology and Business University.

Helm, S., 2000. Viral marketing-establishing customer relationships by 'word-of-mouse'. Electron. Market., 10: 158-161.

Ji-Dong, B., 2010. Research on the Negative Internet Word-of-mouth's Influence on Consumer Behavior Intention. Shandong University.

Jia-Xin, W., 2013. Empirical Analysis on Group Factors' Effects on Herd Behavior of Online Group Buying's Consumers. Beijing University of Posts and Telecommunications, Beijing.

Kim, M.K. and H.S. Kwak, 2015. Influence of functional information on consumer liking and consumer perception related to health claims for blueberry functional beverages. Int. J. Food Sci. Tech., 50: 70-76.

Kim, Y.G., S.Y. Jang and A.K. Kim, 2014. Application of the theory of planned behavior to genetically modified foods: Moderating effects of food technology neophobia. Food Res. Int., 62: 947-954.

Krishna, K.P., A. Kar, S.N. Jha and M.A. Khan, 2012. Machine vision system: A tool for quality inspection of food and agricultural products. J. Food Sci. Technol., 49: 123-141.

Mascarenhas, O.A.J. and M.A. Higby, 1993. Peer, parent and media influences in teen apparel shopping. J. Acad. Market. Sci., 21: 53-58.

Moschis, G.P., 1987. Consumer Socialization: A Life-cycle Perspective. Lexington Books, Lexington, Mass, ISBN: 0669112445, pp: 353.

Mueller, S., P. Osidacz, L. Francis and L. Lockshin, 2011. Filling the gap - how do sensory and marketing attributes interact in consumers' wine choice? Int. J. Viticul. Enol., 2: 1-7.

Philip, K., 1997. An Introduction to Marketing. HUAXIA Publishing House, Beijing.

Sarbjeet, S. and S. Jagpreet, 2015. An approach for determining trustworthiness of individuals in a web-based social network. Arab. J. Sci. Eng., 41(2): 461-477.

Schierz, P.G., O. Schilke and B.W. Wirtz, 2009. Understanding consumer acceptance of mobile payment services: An empirical analysis. Electron. Commer. R. A., 9: 209-216.

Sedigheh, G., K. Ezatollah and A. Hossein, 2013. Knowledge, attitudes and behavioral intentions of agricultural professionals toward Genetically Modified (GM) foods: A case study in Southwest Iran. Sci. Eng. Ethics, 19: 1201-1227.

Shao-Jun, Z., 2011. Empirical analysis on consumers' intention and willingness to payfor organic restaurant according to the theory of planned behavior. National Kaohsiung University of Applied Sciences Institutional Repository.

Spence, A. and E. Townsend, 2006. Examining consumer behavior toward Genetically Modified (GM) food in Britain. Risk Anal., 26: 657-670.

Tinsley, H.E. and D.J. Tinsley, 1987. Uses of factor analysis in counseling psychology research. J. Couns. Psychol., 34: 414-424.

Vemeir, I. and W. Verbeke, 2008. Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. Ecol. Econ., 64: 542-553.

Wenting, D. and J. Guangrong, 2008. A review of the theory of planned behavior. Adv. Psychol. Sci., 16: 315-320.

Wuyts, S.H.K., M.G. Dekimpe, E. Gijsbrechts and F.G.M. Pieters, 2010. The Connected Customer: The Changing Nature of Consumer and Business Markets. Routledge, New York.

Xiao-Dong, Z., M. Ying-Feng and Q. Zi-Wen, 2015. The effect of information dissemination channels for consumers to understand thegenetically modified (gm) food - represented by Nanjing. J. Anhui Agric. Sci., 43: 340-343.

Xiao-Tong, F., 2007. Local Chinese. Jiangsu Literature and Art Publishing House, Jiangsu.

Xu, D., 2012. The Construction and Exploration on the Model of Low Carbon Products Purchasing Behavior of Consumers-low-carbon Household Appliance Products Consumption in Chengdu. Southwestern University of Finance and Economics.

Yuan-Fei, Z., 2012. Study on Consumer's Continuous Purchase Intention on Internet Based on TPB. Shanghai Normal University.

Zhang, M. and L. Guo-Liang, 2015. The effects of consumer's subjective and objective knowledge on perceptions and attitude towards genetically modified foods: Objective knowledge as a determinant. Int. J. Food Sci. Tech., 50: 1198-1205.