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Wuhan International Conference on e-Business

Summer 5-25-2013

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An Empirical Study on the Influence upon Geographical Brand Characteristics to Behavioral Intentions- Word-of-mouth information to adjust the variable

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Abstract: From the perspective of consumers, taking "Changbai Mountain Ginseng" as an example, the paper has proved the influences of geographical brand image on consumers' behaviors. And further more, it has confirmed the significant adjustment function of WOM information on the relationship between geographical brand image and consumers' behavioral intentions. The conclusion of the study can provide rationale for enterprises, government, and industry association to implement geographical brand strategy and to shape geographical brand image.

Keyword: agricultural products, geographical band, geographical band image, behavioral intentions, WOM information;

1.   INTRODUCTION

With consumers' increasing concern on product quality and deepened degrees of marketization, agricultural products has entered into a "brand era", which means the development of regional brand becomes the key to enhance the competitive power.

"Changbai Mountain Ginseng" is a regional brand developed from the geographical advantages of Changbai Mountain. In 2006, it was approved as an exclusive business mark by the state administration for industry and commerce. The unique geography and climate environment and the profound history and culture of Changbai Mountain has endowed "Changbai Mountain Ginseng" with excellent qualities. It is a combination of favorable climatic, geographical and humanistic conditions. To develop the regional brand of "Changbai Mountain Ginseng", to shape a good geographical brand image", is crucially significant to develop "Changbai Mountain Ginseng" industry and to improve the competitive power, home and abroad.

Taking the consumers' stance, grounding on Origin Theory, this paper has not only proved that geographical brand image of agricultural products actually influences consumers' behavior, but also enriched the marginal conditions under which it casts its influences. It has broadened the scope of study as well. It has provided us the reason why "Changbai Mountain Ginseng" has not been prosperously developed with all the advantages, which gives the paper realistic meanings.

2.   LITERATURE REVIEW

2.1 Geogaphical brand and geographical brand image

Geographical brand is marking where the goods from, and the goods quality, reputation or other characteristic mainly determined by the region's natural factors and human factors. Geographical indication and appellation of origin are core protection system of the geography brand. Geographical brand are generally protected by the

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collective marks, certification marks and the form of appellation of origin. Geography brand image is the consumers' overall perception and thoughts to geographic brand, is the brand associate reflection of consumers' mind.

According to academic circles, the geographic brand research focuses on the following aspects: First is judicial protect of geographic marks and appellation of origin. [1] Second is how to form industrial clusters of geographical brand and the regional competitive advantages which are after industrial clusters formed. [2] The third is the influence of convergence factors which is under the sharing of geographic brand. [3] The fourth is in the process of outward expansion especially to foreign expansion of geographical brand, the localization process encountered bottleneck and related measures. [4] So, the existing research angles are more macroscopic, compared to China this vast country, under the influence of historical factors and human factors, the quality difference of agricultural products are obviously. Different categories of agricultural products have different research angles and methods. This paper select the Changbai mountain ginseng as the research object, in microscopic view to in-depth research, and enrich the theory of geographical brand.

2.2 Behavior intentions

After the 1990s, the marketing thought had a great change. To achieve stable sustainable income, the enterprise gradually began to pay attention to the old customers' value, customer loyalty were got full attention. For the measurement of customer loyalty is including behavior loyalty measurement and attitude loyalty measurement. On behavior loyalty measurement, mainly is to evaluate the spending of customers buy the products or services, and the percentage spending accounts for its purchase similar products or services of the total. Attitude loyalty or called the consumer behavior tendency, it is the forecast strength of the behavior tendency of customer in the future period of time may purchase a product or service. [5]

The most direct prediction method to measure consumers' future specific behavior is to know they take the behavior tendency. [6] After the correct measurement, the corresponding behavior tendency even we can accurately predict most of the social behavior. [7]

2.3 Public praise

As a consumer behavior public praise has a long history. In the most began it is defined as oral communication, with the deepening of the research theory about public praise; the denotation and connotation of the area were also expanded. This paper defined it for "public praise is a kind of no commercial purpose behavior, is the informal communication between disseminator and receiver of product, brand, organization or service".
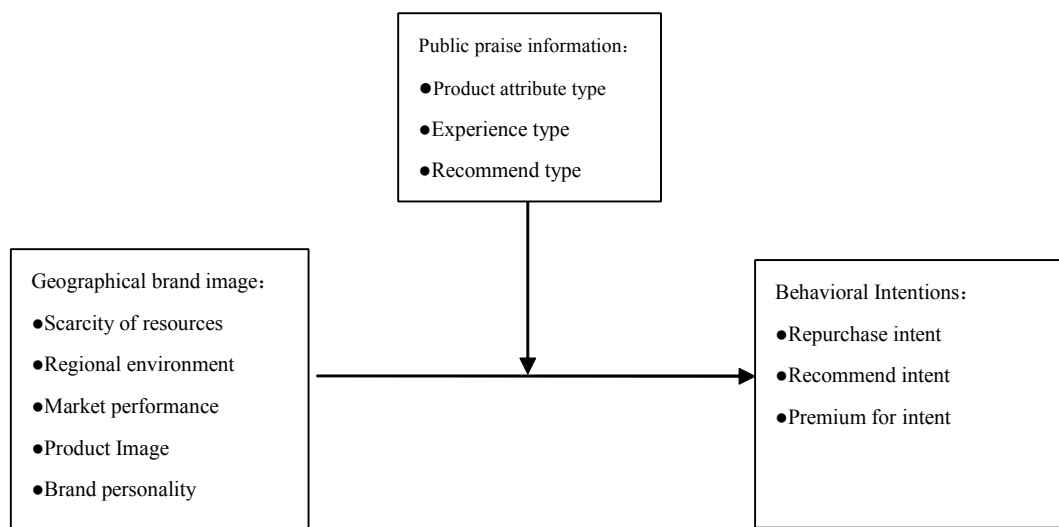
Early research in the field of social sciences, has discovered a significant impact on the reputation of consumers' purchasing decisions. [8] scholars Katz, & Lazarsfeld (1955) proved the reputation of the impact of the role of the most significant impact on household goods or food, its conversion brand impact force is the press 7 times, personal selling 4 times, radio advertising times, if the consumer attitude to definitely negative, neutral, word of mouth can be up to nine times the advertising effect. [9] Followed by Asch (1956) using the method of scientific experiments, oral communication-based social herd mentality, and clear the reputation of the consumer behavior. Engel's study also demonstrated the important role of word-of-mouth, the survey showed that 60% of the subjects that word of mouth is the best source of information for decision-making can affect. [10]

For of the public praise research, there are a lot of branches. But the existing researches pay more attention on information transfer and receiver, and lose sight of the communication carrier - public praise information research. [11] Therefore, this article selects the public praise information to research. Public praise information hasn't formed a unified classification model. More common is based on the spread of public praise information to classify the public praise information. This paper use the Chan classification method, it take public praise classified into product attribute type, experience type and recommend type.

3. THEORETICAL FRAMEWORK AND RESEARCH HYPPTHESIS

Many scholars devote to discuss relationship between the brand image and brand loyalty to predict the customers' future purchasing behavior. As early as in 1973, Lessig has proved the relationship between store images and brand loyalty, and thought the brand image can predict brand loyalty. Aaker (1991) and Keller (1993), through the study of brand equity model, conclusion that the brand image and consumer behavior tendency has the close relationship. Lu Taihong, and other scholars (2006) found that the functional factors have direct influenced on brand loyalty. From above research, it can be assumed that, the geographical brand image can influence on consumers' behavior tendency. For research of the public praise, people paid little attention to public praise information itself, and the moderating effects of public praise information cannot be ignored. Therefore, this paper studied the existence of the moderating effects of public praise information, and the effects of different types of public praise information.

The theoretical framework is shown in figure 1：

Public praise information：
●Product attribute type
●Experience type
●Recommend type

Geographical brand image：
●Scarcity of resources
●Regional environment
●Market performance
●Product Image
●Brand personality

Behavioral Intentions：
●Repurchase intent
●Recommend intent
●Premium for intent

Figure 1.　Theory Frame Diagram

This paper puts forward the following research hypotheses：

H1：Geographical brand image has significant positive influence on consumer behavior tendency.

H2：Public praise information play regulatory role in geographic brand image on consumers' behavior.

H2a：Compare with the positive experience type public praise information, positive product attribute type public praise has influence on consumers' behavior and adjustment more effect.

H2b: Compare with the positive recommend type public praise, positive experience type public praise has influence on consumers' behavior and adjustment more effect.

4. RESEARCH DESIGN AND DATA COLLECTION

4.1Sample selection and experiment design

This article selects the Changbai mountain ginseng as the research sample, using experimental design method. In the inspection effects of the existence tendency which geographic brand image on consumer behavior, using in test design method, through the pre-post test completely random design, make 150 test people to be experiment, to observe the dependent variable changes, so as to determine influence. Inspection public praise information regulation effects, using the test room design method, 150 test people were randomly divided into 3 groups, each

group of fifty people, to compare the size of the regulatory role. To avoid the practice and fatigue legacy effect or order effect caused by the confusion.

4.2 The choice of scale and deep interview

About the composition of the geographical brand image, the author accounts the scarcity of resources, regional environment, market performance, product image and product characteristics of geographical brand image by integrating brand image and the scale of image of original country, and referring to the scale used by Ye Xiaoming to measure the regional brand image of agricultural product, and the 7-level scale used by Li Kete.

About the composition of behavioral intentions, the author adopts the scale used by Dong Dahai and Jin Yufang and thinks it mainly includes subsequent repurchase intention, recommendation intention and purchase at premium intention.

The author carries out the deep interview in semi-structured one-to-one method. The interviewees consists of 5 professionals of Ginseng of Changbai Mountain (3 planters of Ginseng of Changbai Mountain and 2 sellers), 3 consumers who have bought Ginseng of Changbai Mountain and 2 common consumers who haven't.

After the deep interview, the author confirms the measuring scale of geographical brand image and 5 dimensions of scale and the related items of each dimension, which are 18 in total. 3 information sentences of public praise are formed and finally added into the questionnaire. The scientificalness of theoretical framework bas been verified preliminarily.

4.3 Preliminary research and the formation of questionnaire

Preliminary research refers to the analysis of the existence of geographical brand image's influence to behavioral intention so as to determine the feasibility of distributing the questionnaire massively. Fifty questionnaires are given out in preliminary research and forty-eight effective questionnaires are taken back. In preliminary research, the author adopts the way of random intercept interview in the rest area of shopping mall and the interviewees are mainly the middle-aged people who have a certain consuming ability.

Reliability and validity of the questionnaire have been analyzed. The Alpha of the whole questionnaire is 0.768，the KMO is 0.705 and the Bartlett's test results of degree of sphericity is outstanding. The Validity Analysis of geographical brand image scale has been carried out. 5 factors whose characteristic root is over 1 are picked up. The 86.551% of variance is explained accumulatively.

Two items are deleted. One is "professional and technique", for it isn't clustered among the hypothetical variables of this paper. The other is "industrial scale", since in which decussate load appears. After the deletion, the KMO changes from 0.716 to 0.751. The P of Bartlett test is outstanding. The contribution rate is increased to 88.632% from 86.551% and interpretive degree is increased. The validity of behavioral intention scale has been analyzed. KMO=0.723，p=.000, which prove that the sample is suitable for taking further factor analysis. The exploratory factor analysis has been carried out to the sample. Through the analysis of main element, the factor whose characteristic root is over 1 is picked up. The 71.498% of variance is explained accumulatively.

After carrying out the preliminary research, the test items of geographical brand image decreased to 16 from the original 18. But there is no change in the items of behavioral intention. The scale possesses relative high discrimination, consistency and credibility, which provide the foundation to distribute the questionnaire massively.

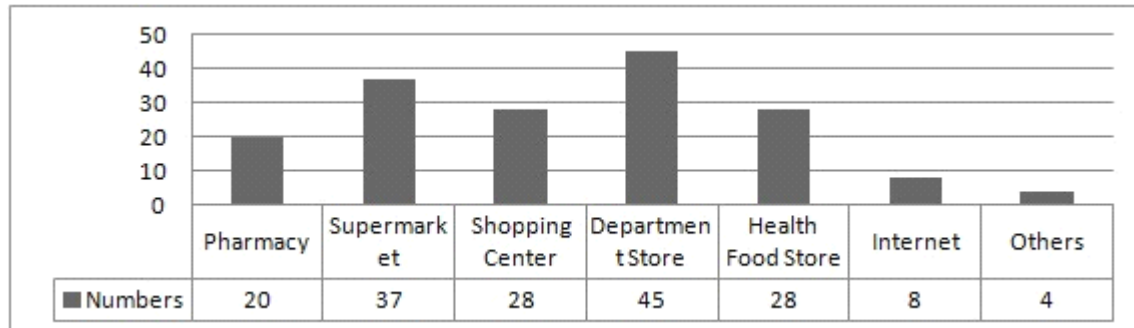## 5.   DATA ANALYSIS AND HYPOTHESIS TESTING

5.1Sample description

This study adopts the way of random intercept and interview on the street and mainly focuses on the group between the age of 30 and 50 who have a certain consuming ability. The respondents possess certain representativeness.
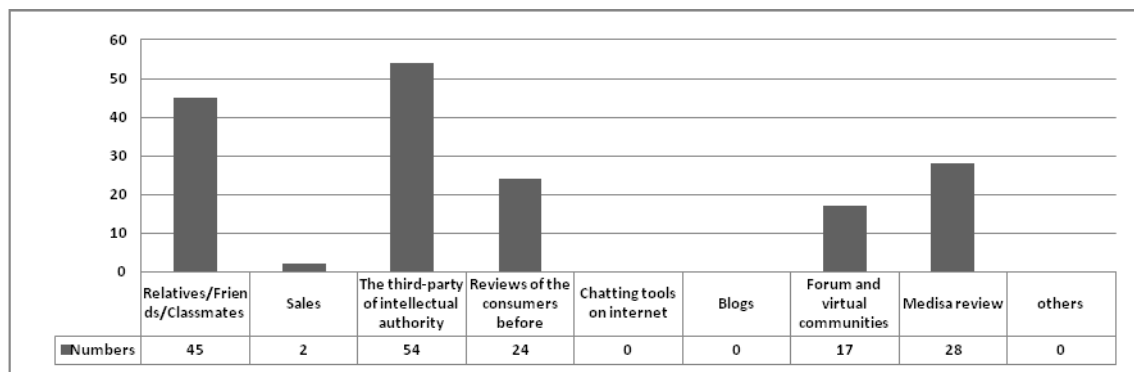
Two hundred questionnaires are distributed in this research and 186 are taken back with the recovery rate of

93%. After getting rid of the incomplete ones, the effective questionnaires are 170 with the effective rate of 85%.

In order to decrease the influence brought by the way of purchase and reputation source to this research as much as possible, the author makes the two as the control variable and chooses the most accepted ones. The descriptive statistics of way of purchase and reputation source is as shown in the figure 2 and 3.

	Pharmacy	Supermark et	Shopping Center	Departmen t Store	Health Food Store	Internet	Others
■ Numbers	20	37	28	45	28	8	4

Figure 2.　Descriptive statistics and analysis of the way of purchase

	Relatives/Frien ds/Classmates	Sales	The third-party of intellectual authority	Reviews of the consumers before	Chatting tools on internet	Blogs	Forum and virtual communities	Medisa review	others
■ Numbers	45	2	54	24	0	0	17	28	0

Figure 3.　Descriptive statistics and analysis of reputation source

According to the descriptive statics, consumers still intend to go to the physical store to buy Ginseng. About the reputation source, the well-knowledged and authoritative third party enjoys the most favor and the second one is relatives and friends.

5.2 Analysis of reliability and validity

After taking back the questionnaires, the analysis of reliability is carried out. Both the general reliability of the questionnaire and the reliability of each variable are over 0.7. The questionnaire possesses a good reliability.

The structure validity of the questionnaire is measured and factor analysis is applied to two variables. In the case that characteristic root is over 1, the maximum load of twenty-one items is more than 0.6, which possesses accumulativeness. The questionnaire has good validity.

5.3 Hypothesis testing

5.3.1 Verification of geographical brand image influences behavioral intentions

Firstly, paired samples T testing is adopted to verify the existence of geographical brand image has influence on behavioral intentions. The analysis result is as shown in Figure 1.

Figure 1   Paired samples T testing

		Paired difference					T	Df	Sig.(bilateral)
		Average	Standard deviation	Se mean	95% confidence interval of difference				
					Lower limit	Upper limit			
Paired sample 1	subsequent repurchase intention	-.84282	.63158	.04844	-.93845	-.74720	-17.399	169	.000
Paired sample 2	subsequent repurchase intention	-.95849	.54782	.04712	-1.0284	-.84512	-19.781	169	.000
Paired sample 3	subsequent repurchase intention	-.73651	.77867	.06951	-.80936	-.61919	-13.216	169	.000

Then regression analysis is carried out. According to the result, t(169)=24.753，p=.000<.005, and the standard regression coefficient of geographical brand image to behavioral intentions, Beta=.886, which shows clearly that geographical brand image has an outstanding influence on behavioral intentions and the hypothesis, H1 is established.

5.3.2 Testing of regulating effect of public praise

This thesis adopts the method of group regression to examine the regulating effect of public praise. The result is shown as follows.

Figure 2   Results of group regression

Type of public praise	Standardized coefficients Beta	U	Regulating R^2	Value of F
Product attributes	0.853***	-1.584	0.722	141.204
Experience	0.765***	-2.363	0.695	134.879
Recommendation	0.666**	-0.513	0.434	44.622

Notice： *** means 1% level is obvious, ** means 5% level is obvious.

This thesis uses z test to further verify the regulating function of public reputation. In the first group of product attributes, z1=2.534. In the second group of experience, z2=2.060. While in the third group of recommendation, z3=1.803. For the two groups of product attributes and experience,Δz=2.513，sig=.000. Meanwhile, the regression coefficient of group of product attributes is bigger than that of the second group, which means compared with the positive group of experience, the positive regulating function of the positive group of product attributes is much bigger. For the two groups of experience and recommendation, Δz=12.895，sig=.000. And the regression coefficient of group of experience is far bigger than that of the group of recommendation, which means compared with positive group of recommendation, the effect brought by the positive group of experience in the process of the geographical brand image positive regulating behavioral intentions is much huger.

In conclusion, all the hypotheses H2、H2a、H2b are proved.

6.   CONCLUSIONS AND MARKETING SUGGESTIONS

Through the above analysis, the author gets two important conclusions and above which the relevant marketing suggestions are put forward.

6.1 Geographical brand image has an outstanding positive influence on behavioral intentions. Establishing a good geographical brand image and endowing geographical brand, Ginseng of Changbai Mountain with an everlasting vitality so as to promote it to function as the brand umbrella and become an important strategy of regional development. Therefore, first of all, the government should do two things as follows: One is strengthening the power of macro-control and strictly controlling the plant area. The plant standard of GAP and the processing criterion of GMP should be enhanced. Meanwhile, the enterprises who have applied the standard should be examined and verified regularly, which not only protects the earth, but also guarantees the Ginseng of Changbai Mountain with low yield and high quality so as to increase the output value. The other is further improving innovation service system of Ginseng industry. The government should promote the fundamental research of Ginseng, cultivate a batch of leading enterprises and let the enterprise brand drives the geographical brand. Secondly, the industry association shall increase the propaganda of geographical indication of Ginseng of Changbai Mountain. In the process of research, the author finds out that the consumers don't know much about geographical brand's legal identification--geographical indication. When applying to possess the geographical indication, the product should be under strict examination of industrial and commercial and quality inspection department. Hence the geographical indication is the symbol of quality and the superior carrier of geographical brand. It is a crucial step in establishing geographical brand that the consumers' know about the geographical indication and recognize the product with it. At last, the enterprises should catch the opportunity of homology of medicine and food and vigorously carry out R&D of the Ginseng food. The enterprises should develop the Ginseng food with good taste, various type, outstanding function and obvious international competition and make the Ginseng food become the daily consumer goods.

6.2 Public praise has the regulating function in the influence brought by geographical brand image to behavioral intentions. The rank of regulating function is as follows: product attributes > experience > recommendation. The consumers who don't have rich knowledge of the product intend to buy Ginseng of Changbai Mountain in department store and super market. They trust the authoritative third party most. Therefore, the key point of propaganda is how to let the consumers receive the public praise of product attributes from the authoritative third party. The propaganda channels can be expanded. Since the consumers' attention paid to self health is increasing, the health care programs become more and more popular, through which the experts and scholars can make a better propaganda of Ginseng food of Changbai Mountain and explain the attributive character to the consumers, which not only promote the purchase, but also make the consumers produce the public praise of product attributes. Network platform can be established via the industry association and in which the latest product information of Ginseng of Changbai Mountain can be released, which is convenient for the consumers to search and read. The enterprises can also set up an incentive plan which means a certain privilege will give to those who release the news of public praise. All these plans aim at making the consumers know something more about the product. In the introducing meeting and other various propaganda activities, besides focusing on introducing the Ginseng food of Changbai Mountain, the related magazines should also be distributed. Integrating with the way of free distribution, the consumers who don't participate in the meeting can also have the chance to get the related information as those who come, which maximizes the effect of introducing meeting. Through this public praise regulating of authoritative third party, geographical brand effect will be established gradually.

zone industrial area brand to create a path and Countermeasures - Changbai Mountain regional brands, for example," funded (ID: xxxxxxx).

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