Will Consumers' Learning Motivation Affect Their Brand Loyalty? Research on Moderating Role of Brand Cognition*

Wen Li, Tian'e Fu#, Ziying Huang

South China University of Technology, Guangzhou, China
Email: #63191415@qq.com

Abstract

Consumer's learning motivation has an influence on learning effect and further on practical result of marketing strategy. In this paper, based on references of Learning Motivation Scale compiled by Amabile and revised by Liping Chi *et al*., which contain six dimensionalities as challenging, enthusiasm, dependence of others' comments, selection of simple tasks, focus of interpersonal competition and pursuit of return, Brand Cognition Scale by Keller and Aaker, and Brand Loyalty Scale by Yoo and Donthu, a model is established to research relationship among consumers' learning motivation, learning effect (cognition to brand) and brand loyalty. Questionnaire survey is made to verify research hypothesis. As the research result shown, enthusiasm and pursuit of return have a significant influence on brand image; enthusiasm, dependent evaluation, focus of interpersonal competition and pursuit of return are significantly influential to brand recognition; brand cognition has a positive influence on brand loyalty.

1. Introduction

Consumer behavior is largely acquired. Consumer's brand knowledge can be learned so that it can strengthen brand cognition, resulting in brand loyalty, which is an important asset of the enterprise [1]. Since consumers have different learning motivations, different consumers have different levels of brand cognition. In this paper, learning motiva-

tion has been introduced into the empirical research of brand management. It's a new supplement of existing consumer psychology research. This research selects smart phones which are the products that have a relatively high concentration of brands. Through the questionnaire survey of 180 undergraduates, the study researched the relationship of consumer motivation, brand cognition and brand loyalty.

2. Literature Review

2.1. Learning Motivation

Motivation research has been the focus of the psychology study. Consumer learning motivation is the concrete application of psychology [2]. Motivation is the initiation and maintenance of learning behavior of the individual and it's the tendency toward a certain target. It directly promotes internal motivation of individual learning. Through the understanding of human motivation, people can explain and predict the behavior of individual learning.

Due to the complexity and abstraction of motivation, researchers studied and put forward a series of theories about motivation and motivation measurement scale. Learning Motivation Scale established by American social psychologist, Amabile *et al.*, is recognized and considered valid and reliable tool to measure motivation by many scholars by far. Domestic psychology researcher Liping Chi, Ziqiang Xin translated and revised Amabile's motivation scale, and put forward new scale combined with Chinese culture [3]. The scale is divided into six dimensions including challenging, enthusiasm, dependence of others' comments, selection of simple tasks, focus of interpersonal competition and pursuit of return.

2.2. Literature Review on Brand Cognition

Brand cognition means consumers' knowing, understanding and acquaintance to brand. For researches on brand cognition, the Brand Knowledge System from Keller, an American expert of brand research, is recognized as a comparatively mature system in academic fields. According to Keller, brand cognition consists of two parts: brand awareness and brand image [4]. He thought that brand comes from the differences responded by consumers, without difference, those brand products will be essentially the same as general product, and such difference comes from consumers' comprehending to brand [4]. Also, suggested by David Aaker, American expert of brand, brand cognition contains brand awareness and brand association, brand association is combined together in a meaningful way to form brand image [5]. Biel believes that Brand image can be shown from company image, user image and product/service image, and these three kinds of images originated from consumers' association to relevant features of brand which can be divided into objective association and subjective association according to the attribute [6]. The objective association means cognition to tangible functions, for example, Gree air-condition is high-quality; while for subjective association, it reflects consumers' emotional support from the brand, for instance, iPhone is the model of fashion. Domestic scholars, Xiucheng Fan and Jie Chen (2002) proposed Mea-

surement of Brand Image Model where divided brand image into four dimensionalities: product dimension, corporate dimension, humanity dimension and semiotic dimension, and brands of toothpaste were used for empirical verification [7].

2.3. Brand Loyalty

Brand loyalty means consumers have special affection and hobbies to a certain brand, they have their own preferred brand to buy the certain type of products in a brand-oriented way and never try other brands of the same product. Consumers know about brand knowledge through study to form brand loyalty which is not only the important intangible assets for company, but also the key of brand marketing. According to research by Oliver, brand loyalty directly affects a company's profit since it can guarantee a fixed future customer group [8]. American scholars Yoo and Donthu built a multidimensional consumer-based brand equity model, abbreviated MBE model, in this model, brand association, brand awareness and brand loyalty are researched from perspective of brand cognition [9].

On these bases, we mainly research the relationship among consumers' learning motivation, brand cognition and brand loyalty, involving three aspects: 1) consumers' learning motivation, referring to Study Motivation Scale compiled by Amabile and revised by Chi Liping; 2) brand cognition, referring to Brand Cognition Scale by Keller and Aaker; 3) brand loyalty, referring to Brand Loyalty Scale by Yoo and Donthu.

3. Theoretical Model and Research Hypothesis

At current stage, there are still few researches on relation between consumer psychology and brand, but it is implied in many related literatures. For example, Jiao Xuan, Xu Fei, Xue Ke, *et al.*, who, under different perspectives, have verified that consumers' psychology affects their cognition to brands to some extent. These research findings lay a foundation for research model in this paper. Therefore, based on references of all researches, model (Figure 1) and hypothesis below are proposed by the paper.

We propose the following assumption on the basis of the model.

1) The relationship between consumer learning motivation and brand cognition

H1a: Challenging is positively related to brand image.

H1b: Enthusiasm is positively related to brand image.

H1c: Dependence of others' comments is positively related to brand image.

H1d: Selection of simple tasks is positively related to brand image.

H1e: Focus of interpersonal competition is positively related to brand image.

H1f: Pursuit of return is positively related to brand image.

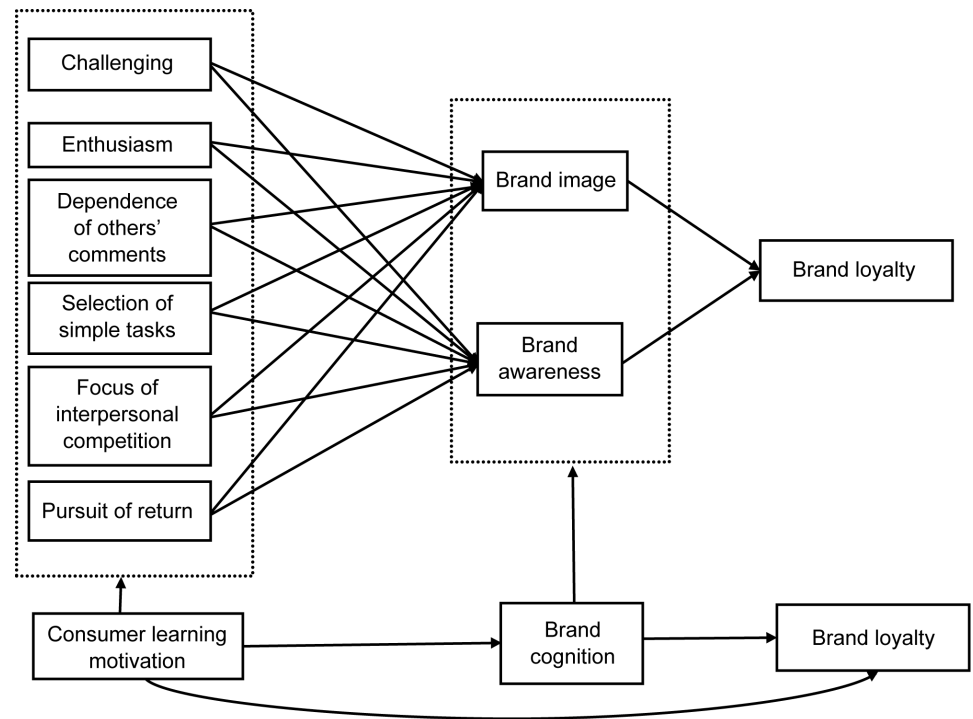H2a: Challenging is positively related to brand awareness.

H2b: Enthusiasm is positively related to brand awareness.

H2c: Dependence of others' comments is positively related to brand awareness.

H2d: Selection of simple tasks is positively related to brand awareness.

H2e: Focus of interpersonal competition is positively related to brand awareness.

H2f: Pursuit of return is positively related to brand awareness.

Figure 1. Relationship model of consumer learning motivation, Brand cognition and Brand loyalty.

2) The relationship between brand cognition and brand loyalty

H3a: Brand image is positively related to brand loyalty.

H3b: Brand awareness is positively related to brand loyalty.

4. Research Design

4.1. Valid Sample Descriptive Statistics

Study Motivation Scale is comparatively mature, but there are many questions listed on the scale and it is a waste of time to answer all of them, besides, due to few researches on relation between consumers' learning motivation and brand, the survey is hard to conduct. So, in this survey, cooperative college and university students are selected as objective, boys and girls each half, their age is about 20 years old, all of them are smart phone consumers. Although they thought the survey is interesting and significant, the rate of valid questionnaire return is still low. Paper questionnaires are used and smart phone is taken as research object. 300 pieces of questionnaires we gave out are returned, 120 pieces are removed as invalid due to its data missing etc., totally 180 pieces of valid questionnaires are obtained, which means the questionnaire validity rate is 60%.

4.2. Reliability and Validity Test

In the paper, SPSS21 software is used for validity test. As shown in Table 1, CITC of all items are all greater than 0.35, Cronbach's α coefficient of each variable are all greater

Table 1. Reliability analysis of all questionnaire variables.

		Questions	CITC	Cronbach's α	Standardized coefficient
Challenging	Q1	You are enjoyable to try to solve harder problems;	0.523		0.705
	Q2	You are glad to manage to solve complicated problems;	0.512		0.696
	Q3	What are the new problems in your opinion and what kind of new problem do you like to delve?	0.392		0.509
	Q4	Do you like to solve difficulties on your own?	0.385	0.750	0.510
	Q5	Do you clearly know your target about your academic achievement?	0.369		0.577
	Q6	Is it important for you to show yourself?	0.427		0.530
	Q7	Do you hope to acquire new knowledge and skill through your job?	0.493		0.592
	Q8	Will you feel satisfied after you set a goal for yourself?	0.488		0.519
Enthusiasm	Q9	For you, is it important to do things you like?	0.484		0.493
	Q10	Do you like to engage in something interesting that can concentrate your attention and make you forgetful?	0.426		0.514
	Q11	For you, the most important is to do your favorite things?	0.573		0.652
	Q12	When you're doing your favorite thing, will you care the result?	0.523	0.735	0.675
	Q13	When you gain new experience from doing something, will you be satisfied regardless of the result?	0.552		0.601
	Q14	Are you always driven by curiosity?	0.352		0.551
Dependence of others' comments	Q15	You don't care others' comments on your academic performance, do you?	0.389		0.650
	Q16	You care a lot about others' reactions to your opinions, don't' you?	0.355		0.557
	Q17	Will you be motivated by others' recognition and praise to you?	0.487		0.546
	Q18	It makes no sense if no one understands your good performance, do you think so?	0.354	0.643	0.571
	Q19	Will your achievement enable you to struggle forward?	0.389		0.538
	Q20	Do you think less of scores and awards?	0.339		0.525
Selection of simple tasks	Q21	Do you like tasks or assignments that are easy to finish in a direct way?	0.378		0.507
	Q22	Do you prefer jobs with clear procedures?	0.375	0.700	0.537
	Q23	Do you prefer the task that you are confident to complete rather than that you have to try your best to finish?	0.43		0.967
	Q24	Do you like someone to set a definite target for your work?	0.365		0.995
Focus of interpersonal competition	Q25	Are you eager to know your largest potential in academic performance?	0.297		0.441
	Q26	Do you expect others' attention on your excellent academic performance?	0.355	0.645	0.600
	Q27	Do you clearly know your goal to pursuing great achievement?	0.671		0.583
	Q28	From your perspective, success means doing better than others, is that true?	0.692		0.520

Continued

Pursuit of return	Q29	Do you always expect returns for what you have done?	0.527	0.681	0.554
	Q30	Do you care more on returns from things you did?	0.527		0.598
Brand image	Q31	Do you think that this brand of smart phone has a good appearance and design?	0.686		0.720
	Q32	Do you agree that this brand of smart phone is excellent in terms of its materials and workmanship?	0.692		0.695
	Q33	Is this brand of smart phone equipped with a high-quality camera for you?	0.616		0.630
	Q34	Does this smart phone have great configuration and property?	0.66		0.682
	Q35	Is the screen of this smart phone high-quality?	0.694		0.676
	Q36	Is this brand of smart phone easy and convenient to operate? Does it have practical functions?	0.581	0.925	0.584
	Q37	Does this brand of smart phone have strong signal connection?	0.646		0.633
	Q38	It the battery durable?	0.653		0.636
	Q39	Is it designed in an innovative way?	0.654		0.621
	Q40	Is it fashionable?	0.757		0.750
	Q41	Can you feel positive energy from this smart phone?	0.559		0.583
	Q42	Can you feel confidence from using this smart phone?	0.644		0.567
	Q43	Does this smart phone excite you?	0.48		0.509
	Q44	Do you feel a feature of dynamics from the smart phone?	0.63		0.541
	Q45	Can you feel luxury from this smart phone?	0.598		0.517
	Q46	It this smart phone groovy?	0.64		0.622
Brand awareness	Q47	Does the company of this brand put many advertisements and conduct public activities?	0.438	0.763	0.554
	Q48	Is this company highly-praised?	0.591		0.603
	Q49	Does this company have a strong sense of social responsibility?	0.622		0.576
	Q50	Are the advertisements of this company well-known?	0.527		0.531
	Q51	Does this company pay much attention to customer demand?	0.513		0.631
Brand loyalty	Q52	Are you a loyal customer for this company?	0.727		0.917
	Q53	Is this brand of products your first choice?	0.774	0.852	0.932
	Q54	You won't choose other brand for the same product, will you?	0.67		0.857

than 0.6, which indicates good internal consistency among questions and good scale reliability.

For reliability, AMOS 19.0 is used to conduct test via confirmatory factor analysis, so as to obtain standardized coefficients of all factors, all standardized coefficients are greater than 0.5, and p < 0.001, significantly. It means that the questionnaires meet validity requirements, the measurement index can well explain corresponding variables,

and the model has good inherent quality and constructs validity.

4.3. Model Test and Result Analysis

In this research, SPSS 21 is adopted to do correlation analysis for 9 variables of challenging, enthusiasm, Dependence of others' comments, selection of simple tasks, focus of interpersonal competition, pursuit of return, brand image, brand awareness and brand loyalty. The results are shown in Table 2 correlation indexes of all variables are shown under diagonal line.

It is known from Table 2 that consumers' learning motivation has certain correlations with brand cognition and brand loyalty. The six dimensionalities mentioned above is positively related to all indexes of brand cognition, yet the relation between Selection of simple tasks and brand cognition is less close than that of other dimensionalities with brand cognition; concerning brand loyalty, it is significantly related to brand image, brand awareness and brand loyalty. Relation of brand awareness with brand loyalty is closer than that of brand image with brand loyalty.

Finally, by using AMOS 19.0, hypothesis approach and its corresponding test result are figured out, see Table 3, Table 4 and Table 5.

5. Conclusions

In this paper, we took users of smart phone in colleges and universities in Guangdong province as research samples and discussed the relationship among consumers' learning motivation, brand cognition and brand loyalty. According to the survey, we get the following conclusions: 1) consumers' learning motivation affects their cognition to brands to some extent, relevant influence factors are listed below: enthusiasm and pursuit of return have a significant influence on brand image; enthusiasm, dependence of

Table 2. Correlation analysis of consumer learning motivation, brand cognition and brand loyalty.

	Mean value	Standard deviation	1	2	3	4	5	6	7	8	9
1) Challenging	3.904	0.502	1								
2) Enthusiasm	4.072	0.599	0.487**	1							
3) Dependence of others' comments	3.751	0.579	0.479**	0.621**	1						
4) Selection of simple tasks	3.750	0.698	0.217**	0.314**	0.320**	1					
5) Focus of interpersonal competition	3.583	0.686	0.496**	0.331**	0.505**	0.344**	1				
6) Pursuit of return	4.269	0.678	0.680**	0.389**	0.417**	0.226**	0.372**	1			
7) Brand image	4.075	0.588	0.498**	0.464**	0.509**	0.253**	0.424**	0.398**	1		
8) Brand awareness	3.976	0.616	0.362**	0.446**	0.420**	0.246**	0.386**	0.340**	0.671**	1	
9) Brand loyalty	3.635	0.892	0.154*	0.313**	0.210**	0.230**	0.191*	0.096	0.240**	0.391**	1

Note: *Means significant correlation on the level of $p < 0.05$, **Means significant correlation on the level of $p < 0.01$.

others' comments, focus of interpersonal competition and pursuit of return are significantly influential to brand awareness. For these reasons, we suggest the sellers should give much consideration to consumers' enthusiasm and pursuit of return when designing brand image involving product appearance, configuration and brand personality. Meanwhile, it is helpful for the sellers to promote brand awareness if they give more consideration on consumers' enthusiasm, dependence of others' comments, focus of interpersonal competition and pursuit of return. 2) The influence of brand cognition on promoting brand loyalty is significant. Compared with brand image, brand awareness is more powerful to drive promotion of brand loyalty.

The results of this survey expanded empirical research of introducing psychological theory to brand management in a theoretical way and can be applied practically. The

Table 3. Fitting results of the model.

Test statistics	Model fit	Results	Conclusion
x^2/df	<5, <3 is better	2.706	adaptive
GFI	>0.9, >0.85 is acceptable	0.920	adaptive
NFI	>0.9	0.915	adaptive
CFI	>0.9	0.925	adaptive
RMSEA	<0.10, <0.05 is better	0.051	adaptive

Table 4. Path analysis results.

Path	Standardized path coefficient	Standard Deviation	C.R.	p	Results
H1a: brand image ← Challenging	0.13	0.12	1.598	0.11	no influence
H1b: brand image ← Enthusiasm	0.395	0.077	4.366	***	positive influence
H1c: brand image ← Dependence of others' comments	−0.006	0.112	−0.076	0.939	no influence
H1d: brand image ← Selection of simple	0.075	0.191	1.026	0.305	no influence
H1e: brand image ← Focus of interpersonal competition	0.256	0.14	2.544	0.011	no influence
H1f: brand image ← Pursuit of return	0.869	0.59	3.672	***	positive influence
H2a: brand awareness ← Challenging	0.088	0.086	1.309	0.19	no influence
H2b: brand awareness ← Enthusiasm	0.646	0.097	4.928	***	positive influence
H2c: brand awareness ← Dependence of others' comments	−0.311	0.117	−3.075	**	positive influence
H2d: brand awareness ← Selection of simple	0.107	0.157	1.526	0.127	no influence
H2e: brand awareness ← Focus of interpersonal competition	0.302	0.124	2.949	**	positive influence
H2f: brand awareness ← Pursuit of return	0.613	0.415	3.192	**	positive influence
H3a: brand loyalty ← brand image	−1.527	0.616	−5.535	***	positive influence
H3b: brand loyalty ← brand awareness	2.064	1.007	5.288	***	positive influence

Table 5. The conclusion of the research.

Number	Assumption	Conclusion
H1a	Challenging is positively related to brand image.	nonsupport
H1b	Enthusiasm is positively related to brand image.	support
H1c	Dependence of others' comments is positively related to brand image.	nonsupport
H1d	Selection of simple tasks is positively related to brand image.	nonsupport
H1e	Focus of interpersonal competition is positively related to brand image.	nonsupport
H1f	Pursuit of return is positively related to brand image.	support
H2a	Challenging is positively related to brand awareness.	nonsupport
H2b	Enthusiasm is positively related to brand awareness.	support
H2c	Dependence of others' comments is positively related to brand awareness.	support
H2d	Selection of simple tasks is positively related to brand awareness.	nonsupport
H2e	Focus of interpersonal competition is positively related to brand awareness.	support
H2f	Pursuit of return is positively related to brand awareness.	support
H3a	Brand image is positively related to brand loyalty.	support
H3d	Brand awareness is positively related to brand loyalty.	support

conclusions help enterprises to understand consumers' learning motivation and adjust brand marketing strategy according to their psychology, so as to simulate consumers' learning motivation and enable them to improve brand cognition and build lasting brand loyalty.

This paper has the disadvantage that only college and university students are investigated, so further research needs to be conducted.

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