Developing an Emotional Design Predictor for Brand Loyalty

An Introductory Research on Interrelationship between
Brand Loyalty and Emotion, Brand Loyalty and Culture

by
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ABSTRACT

The aim of this study is to conduct the empirical tests on consumer’s emotional responses of product design and the relationship between emotion and consumer’s attitudinal loyalty to identify if there exists potential relationship links between these two factors together by following certain regulation. This study also seeks to compare Brand Loyalty of Apple products across two different cultures - China and US to see if there are any differences regarding their brand loyalty construction and expression. The emotional responses on product design were also studied in order to reveal potential emotional design issues between the two different cultures. Results of this study show that: (1) Brand loyalty strengthens a consumer’s emotion bond with a targeted brand through its product carrier. Emotion is seen as a predictor for brand loyalty based on consumer proportionality and conformity of expression. (2) Cognitive experience is not necessary nor a sufficient condition to build brand loyalty. Emotion and culture will be crucial in constructing brand loyalty without cognition. Cultural differences will affect brand loyalty, especially regarding attitudinal loyalty. (3) Different cultures share different ways of emotional expression. Based on the scope, limitations, and results of this research, Chinese consumers appear to be more sensitive in their emotional feelings of the iPad’s design than American consumers.
DEDICATION

This thesis is dedicated to those who provide, in abundance, love, support and inspiration – Elva, Qian, Xi, Kevin, Mom and Dad.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background &amp; Justification</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1 Global Marketing</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1.1 Loyal Consumer</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1.2 Culture’s Influence</td>
<td>2</td>
</tr>
<tr>
<td>1.1.2 Emotion</td>
<td>5</td>
</tr>
<tr>
<td>1.1.2.1 Emotions in Marketing</td>
<td>5</td>
</tr>
<tr>
<td>1.1.2.2 Consumer Satisfaction</td>
<td>6</td>
</tr>
<tr>
<td>1.1.2.3 Important Predictor for Loyalty</td>
<td>7</td>
</tr>
<tr>
<td>1.1.2.4 Attitudinal Loyalty</td>
<td>7</td>
</tr>
<tr>
<td>1.2 Theoretical Framework</td>
<td>8</td>
</tr>
<tr>
<td>1.2.1 General Conceptual Framework</td>
<td>8</td>
</tr>
<tr>
<td>1.2.2 Specific Conceptual Framework</td>
<td>9</td>
</tr>
<tr>
<td>1.3 Methodology</td>
<td>13</td>
</tr>
<tr>
<td>1.3.1 PreEmo Concept Naming</td>
<td>13</td>
</tr>
<tr>
<td>1.3.2 Survey</td>
<td>13</td>
</tr>
<tr>
<td>1.4 Outline of the Report</td>
<td>14</td>
</tr>
<tr>
<td>2 LITERATURE REVIEW</td>
<td>15</td>
</tr>
<tr>
<td>2.1 Cognition Vs. Emotion</td>
<td>15</td>
</tr>
<tr>
<td>2.1.1 Ways to Perceive External World</td>
<td>15</td>
</tr>
<tr>
<td>2.1.2 Emotion</td>
<td>15</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>2.1.2.1 Gaps of Research on Emotion</td>
<td>15</td>
</tr>
<tr>
<td>2.1.2.2 Arguments between Emotion and Cognition</td>
<td>16</td>
</tr>
<tr>
<td>2.1.2.3 Definition of Emotion</td>
<td>16</td>
</tr>
<tr>
<td>2.1.2.4 Revival of Research on Emotion</td>
<td>17</td>
</tr>
<tr>
<td>2.1.3 Interaction between Emotion and Cognition</td>
<td>18</td>
</tr>
<tr>
<td>2.1.3.1 Arguments in Neurology</td>
<td>18</td>
</tr>
<tr>
<td>2.1.3.2 Brain Function and Mental Process Analysis</td>
<td>19</td>
</tr>
<tr>
<td>2.1.3.3 Emotion’s effect on Cognitive Process</td>
<td>20</td>
</tr>
<tr>
<td>2.1.4 Emotion and Cognition, in the field of Design</td>
<td>22</td>
</tr>
<tr>
<td>2.1.4.1 Norman’s Model</td>
<td>23</td>
</tr>
<tr>
<td>2.1.4.2 Emotion’s importance in Research</td>
<td>24</td>
</tr>
<tr>
<td>2.2 Brand Personality &amp; Culture Influence</td>
<td>27</td>
</tr>
<tr>
<td>2.2.1 Culture</td>
<td>27</td>
</tr>
<tr>
<td>2.2.1.1 General Definition of Culture</td>
<td>27</td>
</tr>
<tr>
<td>2.2.1.2 Human Culture</td>
<td>27</td>
</tr>
<tr>
<td>2.2.1.3 Culture’s Influences on Personality</td>
<td>28</td>
</tr>
<tr>
<td>2.2.2 Personality</td>
<td>29</td>
</tr>
<tr>
<td>2.2.2.1 Self-Congruence</td>
<td>30</td>
</tr>
<tr>
<td>2.2.2.2 Brand Personality</td>
<td>31</td>
</tr>
<tr>
<td>2.2.2.3 Importance of Brand Loyalty</td>
<td>33</td>
</tr>
<tr>
<td>2.2.2.4 Brand Personality enhances Brand Loyalty</td>
<td>34</td>
</tr>
<tr>
<td>2.3 Brand Loyalty</td>
<td>36</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Body of Document ................................</td>
</tr>
<tr>
<td></td>
<td>4.1.1 Data Regrouping................................</td>
</tr>
<tr>
<td></td>
<td>4.1.1.1 Report of Survey ..........................</td>
</tr>
<tr>
<td></td>
<td>4.1.1.2 Categories of Data Regrouping ..........</td>
</tr>
<tr>
<td></td>
<td>4.1.1.3 Summary of Survey Data ..................</td>
</tr>
<tr>
<td></td>
<td>4.1.2 Organization of PrEmo Data .................</td>
</tr>
<tr>
<td></td>
<td>4.1.2.1 Area Division of iPad ...................</td>
</tr>
<tr>
<td></td>
<td>4.1.2.2 Master Sets ................................</td>
</tr>
<tr>
<td></td>
<td>4.1.3 Summary of Survey Data ....................</td>
</tr>
<tr>
<td></td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>Data Analysis &amp; Findings ..........................</td>
</tr>
<tr>
<td></td>
<td>4.2.1 Positive and Negative Emotions ...........</td>
</tr>
<tr>
<td></td>
<td>4.2.2 Data Analysis based on Group Division .....</td>
</tr>
<tr>
<td></td>
<td>4.2.3 Findings based on Group Division ..........</td>
</tr>
<tr>
<td></td>
<td>4.2.3.1 General Findings ........................</td>
</tr>
<tr>
<td></td>
<td>4.2.3.2 Specific Findings ........................</td>
</tr>
<tr>
<td></td>
<td>4.2.4 Data Analysis based on Culture Comparison</td>
</tr>
<tr>
<td></td>
<td>4.2.5 Findings based on Culture Comparison ......</td>
</tr>
<tr>
<td></td>
<td>4.2.5.1 General Findings ........................</td>
</tr>
<tr>
<td></td>
<td>4.2.6 Conclusion ...................................</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>CONCLUSION ..........................................</td>
</tr>
<tr>
<td></td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>Summary .............................................</td>
</tr>
<tr>
<td></td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Discussion ..........................................</td>
</tr>
<tr>
<td></td>
<td>5.2.1 Emotion and Brand Loyalty ..................</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>5.2.2</td>
<td>Loyalty Consumers without User Experience</td>
</tr>
<tr>
<td>5.2.3</td>
<td>Culture and Emotion expression</td>
</tr>
<tr>
<td>5.3</td>
<td>Future Implication</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Limitations and Directions for Future Research</td>
</tr>
<tr>
<td>5.3.1.1</td>
<td>Insufficient respondents and lacking of time</td>
</tr>
<tr>
<td>5.3.1.2</td>
<td>Verbal and Non-verbal Comparison</td>
</tr>
<tr>
<td>5.3.2</td>
<td>Strategic Implications</td>
</tr>
<tr>
<td>5.3.3</td>
<td>Academic Contributions</td>
</tr>
<tr>
<td>5.3.4</td>
<td>Future Design Implications</td>
</tr>
</tbody>
</table>

REFERENCES | 105 |

APPENDIX

A | SURVEY ENGLISH VERSION | 115 |
B | SURVEY CHINESE VERSION | 118 |
C | MASTER SETS OF PREMO DATA | 121 |
D | CONSENT FORMS ENGLISH VERSION | 142 |
E | CONSENT FORMS CHINESE VERSION | 146 |
F | IRB CERTIFICATE | 150 |
Chapter 1
INTRODUCTION

1.1 Background & Justification

1.1.1 Global Marketing

The tidal wave of integrative globalization has been spreading out all over the world, and as a result we are all affected by global integration. In this “global village”, the contact between people of different cultures becomes more and more frequent. One marked characteristic of globalization is the integration of the global economy. Globalization of markets has been recognized as the most important trend over the past couple of decades. Competition has become more drastic among corporations since our world is a global marketplace today. Holding an advantaged position in the marketplace is a rising issue and has been the focus of several marketing specialists.

Unlike the convergence of income, media and technology which came with globalization, the study of consumer behavior is still diverging (de Mooij, 2000; de Mooij & Hofstede, 2002).

1.1.1.1 Loyal Consumer

Consumer behavior in terms of repeat purchasing through word of mouth could bring profit for many companies. To some extent this repeat purchasing could increase control of the global market translating to a competition for customers, more specifically, for customer loyalty.
Previous research helps to demonstrate why loyal customers are so important to companies.

One important benefit, for companies, is that there are lower costs associated with retaining existing customers. In other words, there is no need for a company to constantly recruit new customers, especially in this mature, competitive market (Ehrenberg & Goodhardt, 2000).

What's more, as long-term customers, people are more likely to expand their relationship within the product range and rewards given by this group have been considered to be long-term and cumulative (Grayson & Ambler, 1999).

Additionally, repeat or behaviorally loyal customers are believed to act as information channels by linking networks of friends, relatives and other potential customers to the organization informally (Shoemaker & Lewis, 1999). These customers could potentially become new loyal customers.

Based on cultural differences, a consumer’s perception of a brand, and the resulting brand loyalty to a brand comes with attitudinal behavior that differ across countries.

1.1.1.2 Culture’s Influence

For global marketing, culture is the major challenge which may affect a customer’s loyalty.
Culture is learned and shared by the members of society simultaneously. Cultural values determine the way people see themselves and others, and how they treat each other.

The role that culture plays in the purchasing decisions of consumers has been examined in several previous studies. Daniel Bell (1976) identified that the emergence of a consumer society is the product of historical and cultural transformations and contradictions. According to Hirschman (1983), a product’s ability to satisfy cultural values will affect consumers’ judgments and perceptions of its attributes.

Not simply being considered as an economic, utilitarian process, consumer behavior is a social and cultural process involving cultural signs and symbols (Bocock, 2000).

Culture and individuals are interrelated, resulting in the beliefs, norms, organizations and social structures (Bond, 1988; Kim, Lee, & Ulgado, 2005). Leung and Bond (1989) confirmed the relationship between cultures and their affect on behavior by observing how this inter-relationship allows individuals, society and culture to function.

Therefore, by affecting a customer’s decision-making, behavior and culture, companies in affect influencing customer loyalty, or more specifically - Brand Loyalty. How to manage a country-specific culture is a rising strategic issue for players in the global marketplace. Cultural diversity could be considered a threat or a challenge or an opportunity all depending on how a company manages it. On one hand, a country’s
culture can provide a strong support to product development, but on other hand, it might be a powerful obstacle for organizational success (Banerjee, 2008). In the end, ignoring a culture’s influences may reduce company profitability.

Today, country-specific culture plays an important role behind the success of any marketer. It maybe difficult for marketers to integrate brand-culture in their overseas operations (Banerjee, 2008). Developing global brand loyalty will add significant value leading to successful branding strategy execution. Global brand loyalty is an essential issue for brand strategists to consider before entering the marketplace (Kust, 2008).

The focus of this study is on how culture effects brand loyalty via brand personality. The interrelationship between brand personality and culture will be discussed in the literature review chapter of this thesis.

A cultural comparison between China and US was done because these countries are clear representatives of Eastern and Western culture and that Eastern and Western cultures have many differences in various areas. For example, people within these two cultures have different cognitive styles and processes (Choong & Salvendy, 1999), These differences in logic directly affect how people in these two countries perceive the world based and on how their social values are developed.

The 1st hypothesis of this research was that cultural differences will affect brand loyalty, especially regarding attitudinal loyalty of consumers.
1.1.2 Emotion

Combining the culture issue mentioned above, this study aims to investigate the differences in brand loyalty construction and emotional expression over different cultures. Over the past decade, several brand researchers have emphasized the importance of building strong brands. Strong brands building will make an emotional connection between the brand and the consumer (Aaker, 1996; Keller, 2003).

1.1.2.1 Emotions in Marketing

The study of emotions in marketing can be traced back to the 1950’s when researchers began to attach importance to emotional appeals (Martineau, 1957). There was a lull in this research for almost two decades between the 1950’s to the 1970’s. Relative research restarted again in the late 1970s when research in marketing, specifically psychology, focused on information-processing theory. This theory considered consumers as decision-makers who make their purchase decisions by searching for and evaluating information (Holbrook & O'Shaughnessy, 1984). It was through the resurgence in these studies of the role of emotions in marketing was established. However, during that period researchers mainly focused their attentions on the advertising sectors. It wasn’t until the 1990’s that, with concerns on complaint behavior, consumption emotions and consumer decision making processes, company interests in emotions in the consumer behavior literature become more prominent. In the 21st century, interest in
emotions has shifted to the field of services marketing (Schoefer & Ennew, 2005; Smith & Bolton 2002). Despite the flourishing interest in the role of emotions in marketing, there is still limited evidence of consumer emotion research in the field of brand loyalty.

1.1.2.2 Consumer Satisfaction

Consumer satisfaction is often mentioned in the discussion of brand loyalty because consumer satisfaction plays an important role in building loyalty. Consumer satisfaction is still seen as an “elusive construct” and accordingly many of the satisfaction-loyalty relationship studies has been done when the development of the satisfaction construct was still at an early stage. (Rosen & Surpremant, 1998). Recent scholars (Liljander & Strandvik, 1997; Peterson & Wilson, 1992) have commented on the need to put more importance on the emotional component of satisfaction rather than to ignore it and so the reliability of previous studies is put into question. The cognitive and emotional components should be considered separately based on their effect on consumer satisfaction and loyalty construction. Furthermore, the state of satisfaction is a more complex and affective state requiring more than a simple cognitive measure (Oliver, 1996; Westbrook, 1987). Expansion of the role of emotions in loyalty research should be encouraged and accepted (Fournier & Mick, 1999).
1.1.2.3 Important Predictor for Loyalty

Based on research of Laros and Steenkamp (2003), a customer’s affective response could influence future customer actions as repeat purchases behavior, especially when customers are favorably disposed to a company. Emotion has been considered as an important predictor of customer loyalty based on work in the service industry.

It is proposed that emotions exert influence on behavior due to human nature. Positive emotions help a person to make decisions on staying or continuing with what he/she has been doing. Conversely, negative emotions tend to link to the making of opposite decision (Bagozzi, Gopinath, & Nyer, 1999). A person under the influence of positive emotions tend to share the positive experience with others, while negative emotions may result in negative behavior such as complaining (Liljander & Strandvik, 1997). Based on positive and negative emotions and their influence on decision-making this research proposes the existence of a significant relationship between emotions and loyalty.

1.1.2.4 Attitudinal Loyalty

Interest has been drawn from marketing academics and practitioners since the earliest studies of brand loyalty. Several articles researched in this study have focused on attitudinal and behavioral loyalty. A commonly accepted theory is that attitudes can be broken down into the constituent parts of emotion and cognition, however attitudinal loyalty has seldom been examined from an emotional perspective.
The marketing literature has tended to adopt a definition of attitudinal loyalty which focuses more heavily on cognition. Oliver (1999) argued that affective loyalty is more deep rooted than cognitive loyalty. Examining attitudinal loyalty by aggregating these two dimensions together may limit the usefulness of the construct and may even produce misleading results to some extent.

This research will focus primarily on customers’ attitudinal loyalty towards a branded product.

The 2nd hypothesis of this research is that a customer’s attitudinal brand loyalty will conform to a customer’s emotional responses toward the physical design of a product.

1.2 Theoretical Framework

1.2.1 General Conceptual Framework

![Figure 1.0. General Conceptual Framework](image)
In correspondence with previously described way, this research proposes the above conceptual framework. Target areas 1 and 2 are the main research areas. In each of these target areas, consumer emotion was analyzed in order to examine the two hypotheses. Brand personality and consumer emotion based on product design served as a medium to connect brand loyalty, culture, and product design.

For a better understanding of the theoretical framework construction and to better guide this research design, general conceptual framework was turned into a more specific one based on the results of previous research studies.

1.2.2 Specific Conceptual Framework

Oliver (1999) defines brand loyalty as: “A deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (p. 34).

The two different aspects of brand loyalty (Behavioral and Attitudinal) have been emphasized in the above definition and have been detailed and thoroughly described in previous studies (Jacoby & Kyner, 1973; Oliver, 1999; Tucker, 1964).

In addition to the behavioral and attitudinal aspects, the construction of consumer brand knowledge, (Antonides & Van Raaij, 1998, pp.110) and the three levels of perception processing (Norman, 2004) are
also considered in this research. In the brand knowledge model, the term – ‘Objective Reality’ is defined as a consumer personal experience. ‘Constructed Reality’ is defined as consumer gain knowledge through external mediums such as advertisement or media.

The Brand Personality model given by Balaji & Raghavan (2009) is also considered in this conceptual framework construction. In order to consider the cultural influences on brand loyalty, the situational context model provided by Mastumoto (2007) that moderates the relative contributions of universal psychological processes, culture and personality has been integrated in the conceptual framework.

Figure 1.1. Construction of Consumer Brand Knowledge by Antonides and Van Raaij (1998)
Figure 1.3. Three levels of perception processing by Norman (2004)

Figure 1.4. Brand personality model by Balaji & Raghavan (2009)
Figure 1.5. Situational context moderates the relative contributions of universal psychological processes, culture and personality by Matsumoto (2007)

The following specific conceptual framework synthesizes all of the previously mentioned construct models:

Figure 1.6. Specific Conceptual Framework
1.3 Methodology

The methodologies for this research included a literature review, open and close-ended survey and PrEmo concept naming.

1.3.1 PrEmo Conceptual Naming

A methodology based on Concept Naming (Takamura, 2005) was used to ascribe consumer’s emotional feedback on the product design of Apple iPad.

In order to avoid interruptions from cognitive responses, PrEmo (Figure 1.7), a product-related emotion measurement tool developed by SUSA group was applied and re-integrated the Concept Naming (Takamura, 2005) method.

![PrEmo](image.png)

*Figure 1.7. PrEmo*

1.3.2 Survey

The survey consisted of open and closed-ended questions touched on a wide range of issues, like brand loyalty, product design,
brand personality perception and so on. The survey was administered in both Chinese and English. The survey was conducted before the PrEmo Concept Naming method in order to help the researcher divided the subjects into different groups for future data analysis.

1.4 Outline of the Report

Chapter two builds the theoretical foundation for this thesis from relevant literature from psychology, marketing, consumer behavior, culture and design. The methodology used to collect data is described in chapter three. Chapter four presents patterns and examines their relevance to this study. Results are presented visually in table and figures to facilitate understanding. Chapter five summarizes the research findings from chapter four and presents a discussion regarding the research findings. Implications for theory, practice and future research are also presented.
Chapter 2

LITERATURE REVIEW

2.1 Background & Justification

2.1.1 Ways to Perceive External World

Years of research in psychology, behavioral science, and sociology inform us that, based on our physical contact, the human feedback to the external world is mainly presented in two ways: through cognition, and through emotion.

2.1.2 Emotion

2.1.2.1 Gaps of Research on Emotion

Within the research on emotions, theories have focused on the physiological, developmental, social, cultural, differential, behavioral and other areas of our emotional life. Though the relationship between cognition and emotion has attracted the interest of philosophers and scientists for centuries, empirical researchers have considered they are incompatible for a long time, and have studied them separately. Most psychological researches in this century were conducted by following the implicit assumption that emotion, and cognition should be studied separately and independently, because they are different feature of human mind.

In the early 1970s, the advent of new experimental techniques for studying cognitive processes like attention, perception and memory still could not reverse the tide that emotions were seldom studied as an object
(Houwer & Hermans, 2010). Even the advance of knowledge concerning emotion has generated commonly held misunderstandings about emotions (Barbalet, 2006, pp. 51).

2.1.2.2 Arguments between Emotion and Cognition

So what reason made emotion such an “unpopular” topic in scholarly study in the past? Cognitive revolution of the 1960s made most cognitive researchers considered emotions with suspicion. Emotion was regarded as sources of noise in a rational system of information processing (Eich & Schooler, 2000, pp. 3). Since emotion’s potent and predictable effects on tasks as diverse as word recognition and risk assessment, cognitive researchers regarded emotions with respect in the 1990s (Eich & Schooler, 2000). Researchers regarded cognition consists of mental functions and processes as memory, attention, problem solving, reasoning, and so on. However, no clear definition of emotion is provided (Liu, Q. Fu, & X. Fu, 2009). Numbers of emotional dimensions are proposed by psychologists. Researchers as Barrett, Mesquita and Ochesner (2007) majorly focused on the experience of emotion. And others prefer to put emphasize on emotion schemas (Izard, 2009).

2.1.2.3 Definition of Emotion

What is emotion? By emphasizing the bodily sensations and excited feelings, common understanding of emotion was more about how does emotion characterize our experience of emotions such as anger, fear, and love (Barbalet, 2006, pp. 51). Emotions are considered as complex
and multifaceted phenomena. It has a wide variety of definitions based on which area it is studied.

When referring to a definition of emotions, many theorists will list a number of components that they consider to be part of the prototypical emotional episode.

These components are: cognitive components; a feeling component, referring to the emotional experience; a motivational component, consisting of action tendencies or states of action readiness; a somatic component, consisting of central and peripheral physiological responses; and a motor component, consisting of expressive behavior (Houwer & Hermans, 2010, pp. 1).

There are so many emotional dimensions proposed by psychologists and theorists. Diversity in emotion research makes it more difficult to be applied or corroborated in other sciences, especially when there is the other option of cognition which seems more “easy-going” or “user-friendly”.

2.1.2.4 Revival of Research on Emotion

But emotions are not optional extras. They are involved in all human action, even thought. Since time immemorial, philosophers never give up the attempt to understand how and why our feelings and emotions come to influence our memories, thoughts, and judgments. Values and meanings which make social life possible are underwritten by emotions (Barbalet, 2006, pp. 51). So, Instead of studying emotion separately, more
and more researchers are trying to bring emotion into their own studies. Researchers have begun to consider emotion as an important factor which interplays with cognition.

Recent years have witnessed a revival of research interest in the interplay between cognition and emotion – a subject was under so much debate and discussion among psychologists in 19th century, but was shunned throughout most of the 20th century (Izard, Kagan, & Zajonc 1984; Watts, 1987).

2.1.3 Interaction between Emotion and Cognition

Today, more and more theories involve emotion and cognition issues. Increasing research requirements has led to a renaissance of reconsidering cognition and emotion, and how they interplay with each other (Eich & Schooler, 2000).

2.1.3.1 Arguments in Neurology

During 19th and 20th centuries, knowledge about emotions was profoundly affected by applying laboratory techniques and experimentation into the study of emotions.

When it comes to neurology, in the beginning, emotion was not included in scientific scope of this cognitive revolution. Existing argument just as Zajonc (1980) in his study pointed that affective reactions depend more upon activity in the right hemisphere whereas left hemisphere is generally dominant for cognitive reactions. Affect and cognition rely upon separate systems.
Experimental and computational analysis of cognitive science did not require emotion (Davidson, 2000, pp. 89). This predicament directly led to the absence of many references to emotion in the classic works of cognitive science that helped to define the field (e.g., Neisser, 1967).

2.1.3.2 Brain Function and Mental Process Analysis

Today the trend is now yielding to a more balanced analysis. Cognitive and neurobiological sciences development has shown that the relationship between cognition and emotion is more interdependent than separate. It is difficult to specify which set of brain regions majorly consists of the emotional brain. Many researchers believe that each region is related to corresponding specific affective function, but none of the regions are purely affective (Barbalet, 2006). Separating brain into cognitive and affective regions based on brain function and connectivity is simplistic and problematic because cognitive and emotional processes have strong mutual influences and engage the same brain regions (Pessoa, 2008). Affective regions are involved in cognitive processes. Cognitive regions are also involved in affective processes (Liu, Q. Fu, & X. Fu, 2009).

The circuitry of emotion and the circuitry of cognition are partially overlapped. And this anatomical fact well demonstrated how the two-way interactions between affect and cognition are likely to occur in complex mental processes from the perspective of mechanics (Davidson, 2000, pp. 89). There are no parts of the brain dedicated exclusively to cognition and others to emotion.
Through the support from the perspective of neurology, how does cognition and emotion specifically interrelate and interact with each other? How does emotion interact with and influence other domains of cognition, in particular attention, memory, and reasoning? How do such interactions affect our behavior, emotion expression, and logical thinking?

2.1.3.3 Emotion’s effect on Cognitive Process

The functional relationships between cognition and emotion are bidirectional, and emotion is the evaluation of the significance of what has happened in relation to personal well-being. Cognition is believed both a necessary and sufficient condition of emotion (Lazarus, 1991).

Affect (or emotion) is formerly thought to be an incentive of irrationality or a kind of bias in human behavior like decision making (Martino, Kumaran, & Seymoul, 2006). However, the effects and functions that emotion exerted on cognition are far beyond irrationality and bias in complexity. Emotion can exert effects at the time of encoding as well as during the experience of recollection (Bower & Forgas, 2000).

One thing to be mentioned is that the impact of emotion on memory for personal events is one of the most controversial issues in all of contemporary cognition and emotion research. One of the most important influences of affective states on cognitive processes is memory.

Emotions definitely affect the cognitive process of recollection. There are two examples that interpret how emotion works on memory, both positively and negatively.
Term ‘flashbulb memories’ was developed by Brown and Kulik (1977) in order to characterize the vivid and accurate recollections associated with specific events.

Conway et al. (1994) made a comparison between the recollections of two groups of subjects (citizens of the UK and individuals who did not live in UK) concerning the resignation of British Prime Minister Margaret Thatcher. The UK citizens showed more emotional about the experience than their counterparts. Test was conducted again in two weeks, over 90% of subjects in both groups reported recollections of sufficient detail. 86% of the UK citizens retained a flashbulb memory 11 months later, only 29% of their counterparts did. Moreover, the UK subject showed markedly greater consistency in their recollections between the two testing intervals.

Their study well demonstrates how emotion helps people to remember events in a more detailed and accurate way.

Evidence above suggests that emotion could make details of memories more vivid and memorable. It improves memory for central details. At the same time, however, the memory may not remain accessible and accurate when people experienced intense emotion during the encoding of an event (Eich & Schooler, 2000). 70% of the eyewitness-memory experts surveyed by Kassin, Ellsworth, and Smith (1989) supported the statement that “very high levels of stress impair the accuracy of eyewitness testimony.”
Strong evidence, not only about recollection, has shown that emotion play a crucial role in perception, attention and decision making (Clore & Storbeck, 2006; Langeslag, Franken, & Van Strien, 2008). Langeslag, Franken and Van Strien (2008) in their study confirmed that stimuli related with the beloved could make love accompanied by increased attention.

2.1.4 Emotion and Cognition, in the field of Design

The discussion on emotion and cognition also happened in other areas which involve human behavior and psychology.

Design, as a subject well connected with human behavior, experience, could not avoid being given new consideration based on development of related disciplines. So what happens when we put emotion in a design context?

Traditional industrial design is about functionality and usability. In the past, a product should become a piece of raw technology first. Style serves technology and usually being considered later.

Today, one of the important issues seems to be about emotion.

Consumers today are pursuing more on intuitive products which could make a personal statement and emotional contact. Functionality is not enough for them. The emotional response from the consumer becomes a crucial factor which makes them choose something. This forces designers to find new ways to differentiate their products from competitors.
In order to keep pace with this change, designers are more likely to focus their attentions on the human, emotional side of product and to seek ways making their products present emotional and behavioral meaning. More attentions have been drawn on the ‘emotional responses and experiences’ that products can bring about rather than on their functionality (Mugge, Schoormans, & Schifferstein, 2009).

The emotional relevance of the product becomes a vital factor when we try to understand appeal of product. Norman (2004) believed that emotional response to products plays a decisive factor in purchase decisions making process.

Therefore, a designer has to overseen from the user's perspective, constantly refer his/her product design back to how it influences consumers’ emotional experiences.

2.1.4.1 Norman’s Model

Donald Norman offered a less complicated sample how cognition and emotion interplay when they meet design. In his book Emotional Design (Norman, 2004). He argued that the interplay between cognition and emotion occurs on three levels (see Figure 2.0).

Three levels are the visceral level, the behavioral level and the reflective level. The visceral level is reactions which are unconsciously triggered by the environment. Visceral design focuses more on appearances. Expert skills operate at the behavioral level. They are performed with little or no conscious effort. It is an automatic process. Our
consciousness resides at the reflective level where we ponder the past and contemplate the future. Donald Norman believed that our perception is dominated by the reflective level.

![Diagram of Three Levels of Processing: Visceral, Behavioral, and Reflective](image)

*Figure 2.0. Three Levels of Processing: Visceral, Behavioral, and Reflective by Norman (2004)*

Although our life is constituted with memory which could be considered as the product of reflective activity, it doesn’t mean that we should neglect that our life is also a series of temporary, fleeting experiences. Experiences are the sources from where our emotion responses come from.

2.1.4.2 Emotion’s importance in Research

The differences and contradictions between emotion and cognition have been the topic of many studies, regarding the power of advertising effects on consumers (Julie and Marian, 1987). Julie and Marian (1987) pointed out that emotion (temporary feeling exerted by ad), to some extent, should not merely be treated as only one more measure of viewers’ ad
evaluations. In their study they noticed that feeling (emotion) are distinct from thoughts and could represent a qualitatively different dimension of attitude. Zajonc (1980) argued that thinking and feeling are two separated, independent evaluation systems in nature. Zajonc’s theories have been well supported by other researchers. By regarding the power of feelings Vs. cognitions on the perceptions of political candidates, Abelson et al. (1982) showed that there are qualitative differences between conventional semantic judgments and affective reports.

The aforementioned body of theory and research raises important issues regarding the role of emotion in understanding advertising effects. At the same time, they well demonstrate the contradiction between people feeling the world via the visceral level and our memory in the reflective level. Since this same theory works in advertising industry, what if we take it into other related areas which also involve both cognition and emotion processes.

We relate to our environment emotionally. Ausra Burns (2000) demonstrated that emotions affect people’s feeling of urban environment based on the diversity of environment. People’s assessment of a situation is crucial in framing emotion relationships with outer environment (Burns, 2000). Emotion is considered as meaningful responses to outer environment.

Consumption behaviors taken by consumer are affected by human emotion, because consumers are interacted with the shopping
environment. Based on urban designers’ theoretical model above, we have reason to believe that emotions play an important role during human purchasing behavior, from decision making to actual purchasing happen. This is also the reason why more and more companies put emphases on providing the customer with satisfactory experiences.

There are not only interpersonal and human-environment interactions, as the key-figure of consumption, products are now often similar with respect to technical characteristics, quality, and price. Emotional quality of products has been confirmed playing an important role in differentiating one from other similar products. Emotional responses may even be a decisive factor when consumers make purchase decisions.

As research and practice applications of emotion had been broadened and strengthened, more and more marketing research, consumer research accepted emotion as a factor which could be taken into consideration in study. However in marketing related research, emotional factors are difficult to evaluate quantitatively. This does not prevent us in believing that emotion has its own effect on consumers’ behaviors under marketing context, however this effect is mainly embodied in an important branch of marketing research, branding.

Today globalization has brought market integration, so accordingly, market research could not be limited in one country or just one culture. So before researchers investigate how emotion working on branding, it is
necessary to find out how culture affects branding, and figure out by which way, culture exerts its general effect on branding, or even emotion itself.

2.2 Brand Personality & Culture Influence

2.2.1 Culture

2.2.1.1 General Definition of Culture

Culture as a term with many different meanings first emerged in Europe during eighteenth and nineteenth century (Levine, 1917, pp. 6). It connoted a process of cultivation and improvement (Levine, 1917, pp. 6).

Today, the meaning of “culture” is more centered on anthropology, including all human phenomena which are not purely results of genetics.

2.2.1.2 Human Culture

Instead of focusing on the general definition listed above, it is better to narrow down the concentration onto how culture works on human personality, thereby affecting brand personality.

Human behavior could be considered as an expression of interaction between culturally dependent social roles and individually role identities (Matsumoto, 2007). Human culture, which is represented by human behavior, is defined as a unique meaning and information system. This system is shared by a group and carried on from generation to generation (Matsumoto, 2007).

Just like other animal cultures, human cultures enable us to survival at the beginning. In other words, we should have a rudimentary form of culture to survive under environmental adaptation. However, we
have developed uniquely cognitive abilities during evolution which make human culture different from other animal cultures (Matsumoto, 2007).

2.2.1.3 Culture’s Influences on Personality

Culture provides individuals the way to deal with basic life issues. However, cultural solutions are usually different based on the environment in which it exists. Same problem might be presented in various ways in different ecological contexts, so the information and meaning systems provided by culture should be specific and unique according to corresponding environment (Matsumoto, 2007).

Culture is identified as an environmental factor that affects consumer behavior (Roth, 1995). Therefore, we have every reason to accept that consumers in different parts of the world may have different consumption conception and behavior based on their cultural differences. In other words, more or less, people of different cultures may be different in their knowledge, regarding brand personality.

Culture-specific brand personality dimensions can be related particularly to human personality traits, emotions, and value orientations of different cultures (Garolera, Benet-Martinez, & Aaker, 2001). Culture, as a network of shared meaning, exerts great influences on social perception organizing process (Garolera, Benet-Martinez, & Aaker, 2001). Culture can affect consumer’ perceptions on brand personality through human personality based on self-congruence between brand personality and
human personality. In turn, brand personality can represent the values and beliefs of a culture (Garolera, Benet-Martinez, & Aaker).

Figure 2.1. Situational context moderates the relative contributions of universal psychological processes, culture and personality (Matsumoto, 2007)

Figure 2.1 illustrates us how culture works on our human personality, and finally affects our behaviors.

This model indicates that basic human nature, culture, and human personality are three main factors are able to influence individual behavior. Personality traits can be manifested by culture as a crucial carrier, and likewise are evaluated and interpreted by culture as the symbolic prism (Maehle & Shneor, 2010).

2.2.2 Personality

Human personality plays an important role in the interactions between human personality, behavior and culture. Because it is not only
considered a result of culture but also could be considered as cause of behavior. Moreover, it is a bridge to link up culture and brand personality.

2.2.2.1 Self-Congruence

Human personality plays a moderating role in communicating brand personality to consumers.

Balaji and Raghavan (2009) provided a model that puts the individual consumer in context with Marketing Communications, Brand Personality Perception and Personal Relevance (see Figure 2.2)

Figure 2.2. Brand Personality Model by Balaji and Raghavan (2009)

Studies have confirmed there is congruity existed between brand personality and human personality. It was found that consumers used to imbue brand with different personality characteristics in their relationship with one brand (Hamm & Cundiff, 1969).

Of course, there are some differences between exact human personality and brand personality. They differ in terms of how they are formed.
According to Levy (1959), personal and social meaning which is embodied in products reinforces the way the consumer considers about himself. Human characteristics can become associated with brands (e.g., Aaker, 1997). Social meaning is encapsulated in brands. We acquire for ourselves the meanings that they symbolize when we acquire particular brands. The congruity between brand personality and consumers’ own self-concept determines which brand consumers prefer to select (Maehle & Shneor, 2010). Individuals define their self-worth in terms of material possessions and symbolic associations. They embody the “social value” individuals perceived. As an important component of this self-defining procedure, those brands which consumers choose, their brand personality is congruent with their own self-concept (Maehle & Shneor, 2010).

The meaning brand added to consumers’ lives is not about physical attributes and functional benefits. It provides an efficient way to build a bond with the consumer and tend to serve a symbolic or self-expressive function (Keller, 1993).

2.2.2.2 Brand Personality

So what is brand personality?

Because the concept of branding and creating of brand personality derive a collection of studies that focused on human qualities of brands stirring personality, the thinking of brand personality stemmed from the definition of brand image in early 1950s (Gardner and Levy, 1955). In other words, brand image encompass brand personality (Magin,
Algesheimer, Huber, & Herrmann, 2003). Due to the strong relationship between brand personality and marketing communications, brand personality is equal to all of a brand’s nonfunctional benefits (Plummer, 1985).

Are there any benefits we will gain by researching brand personality?

Brand personality enables a consumer to express his or her ownself (Belk, 1988), or a more specific self in one or several dimensions (R. Kleine, S. Kleine, & Kerman, 1993).

Brand personality is considered as a crucial way to distinguish a brand in a product category (Halliday, 1996, pp. 3). Brand personality is pretty important in differentiating a brand from its competitors (Maehle & Shneor, 2010).

Brand personality is defined as “the set of human characteristics associated with a brand” (Aaker, 1997, pp. 347). Human characteristics being ascribed to nonhuman entities become a more plainly tendency reflected by these associations (Messent & Serpell, 1981). People used to associate anthropomorphic characteristics with living creatures, but this does not stop people from imbuing brands with human personality traits (Levy, 1985).
2.2.2.3 Importance of Brand Loyalty

Recognizing the increasingly fierce market competition, many companies have initiated a variety of activities in order to improve brand loyalty and retain their current customers.

In order to augment regular patronage and uphold revenue growth in competitive international market today, fostering brand loyalty has become a raising issue and a strategic priority for those international brands which are pursuing sustainable competitive advantages (Tsai, 2011). Brand Loyalty, to some extent, is a fundamental concept in marketing. Developing and maintaining consumer brand loyalty is placed at the center stage of companies’ marketing plans by considering increasing unpredictability and the reducing of product differentiation in today’s markets (Fournier & Yao, 1997).

Why does brand loyalty play such a big role in companies marketing plans, or in other words, what benefits could those companies gain by placing such level of importance on brand loyalty? The benefits associated with brand loyalty have been widely recognized within business, such as retaining existing customers at a low cost, constantly attracting new customers in mature competitive markets (Ehrenberg & Goodhardt, 2000), loyal customers are also considered as information channels by informally framing networks of friends, relatives and other potential customers to the organization (Shoemaker & Lewis, 1999).
Researchers believed brand-to-consumer relationships play the role as core in eliciting favorable consumer behavior. The rewards from long-term customers are long term and cumulative, because this group are known more favorable to expand their relationship within the product range (Grayson & Ambler, 1999). Additional purchases made by loyal consumers dedicate a lot to a firm’s performance (Huber & Hermann, 2001). Loyalty is the best and most important way for consumers to express their satisfaction with brand performance (Bloemer & Kasper, 1995).

2.2.2.4 Brand Personality enhances Brand Loyalty

When it comes to the issue of consumer behavior, researchers have focused primarily on the structure of brand personality. Humanizing or attributing human characteristics, a common method that consumers personalize brands, authorize the brand to help it construct a vital place in the spectrum of consumer’s life (Balaji & Raghavan, 2009). Brands enable consumers to generate different facet of their actual self based on brands’ symbolic meaning (Aaker, 1999). In the light of brand personality, consumers will choose a brand which is consistent with their own self-concept from consumers’ view and build up desirable relationships between brand and consumer (Fournier, 1998). The brand may be considered an extension of the self by a consumer (Belk, 1988).

Consumers can be promoters of a company’s brands and services (Morgan & Hunt, 1994). Once a company get acceptance from consumers,
consumers tend to purchase more and recommend the company’s products to others (Ahearne, Bhattacharya, & Gruen, 2005). Study on brand communities reported the same result that consumer tend to be supportive when they identify with a brand community (Algesheimer, Dholakia & Herrmann, 2005). Since brand personality does play an important interaction with consumer behavior and attitude, will it works on brand loyalty construction as well?

By personalizing brands, consumers set up a kind of self-congruence with specific brands. Kim et al. (2005) indicate that self-congruence promotes positive emotions thereby helping consumer to build a long-term relationship with a brand. Self-congruence also determines brand performance to some extent (Mangleburg et al., 1998) by influencing buying decisions making process of consumer and their attitude to a brand (Hamm and Cundiff, 1969).

Consumers tend to provide more favorable product evaluation based on the fit between self-concept and brand personality (Freling & Forbes, 2005).

Based on previous researchers’ conclusion, there is no doubt that brand personality can affect brand loyalty construction through affecting a consumer’s attitude and behavior. Much more than this, brand personality exerts positive effect on brand loyalty.

Brand personality enhances brand trust and preference (Sirgy, 1982; Fournier, 1998) and improves brand loyalty (Kressman, Sirgy, 1982; Fournier, 1998) and improves brand loyalty (Kressman, Sirgy, 1982; Fournier, 1998) and improves brand loyalty (Kressman, Sirgy, 1982; Fournier, 1998).
Herrman, Huber, & Lee, 2006). Brand personality also do great contribution in differentiating brand from other competitors (Aaker, 1997).

Strong brand personality is believed a key factor for the success of a brand. Brand personality and its appendant brand associations will greatly benefit brand usage and brand loyalty and increase preference (Freling & Forbes, 2005). As consumers become loyal they project their personalities through the brand to express their self-concept (Phau & Lau, 2001).

Thus the conclusion can be drawn that brand personality and brand loyalty complement each other as well as help each other forward.

2.3 Brand Loyalty

2.3.1 Definition of Brand Loyalty

Previous studies have provided researchers various definitions on brand loyalty. Although there are many arguments based on in which way brand loyalty is defined, Colombo and Morrison (1989) pointed out that only researcher’s imagination could limit the number of definitions for brand loyalty.

No consensus has been reached on a precise definition of brand loyalty in marketing literature although this concept has been used extensively in this field.

In fact, Jacoby and Kyner (1973) asserted that, “there are at least 8 major approaches to operationally defining brand loyalty”. The most widely accepted definition of brand loyalty is by Jacoby and Kyner (1973),
who defined brand loyalty as the biased, behavioral response, expressed over time, by some decision making unit, with respect to one or more alternative brands out of a set of such brands, and is a function of psychological processes.

Aaker (1992) suggested us that there exist two alternative approaches to the construct of brand loyalty - “a consistent purchase behavior of a specific brand over time” and “a favorable attitude towards a brand.”

2.3.2 Behavioral Loyalty Vs. Attitudinal Loyalty

Dick and Basu (1994) suggested that a favorable attitude and repeat purchase should be included in the definition of brand loyalty.

As early as the 1960s, research on brand loyalty has proposed two perspectives in defining and operationalizing brand loyalty: behavioral and attitudinal, yet few empirical studies have incorporated both dimensions. Brand loyalty is often inferred from, or defined with, the repeat purchase behavior of a particular brand in the past, as seen in the definition given by Kuehn (1962) and Tucker (1964).

2.3.2.1 Weakness of Behavioral Loyalty

The behavioral approach to brand loyalty presents brand loyalty construction in an over-simplistic way. Researchers have struggled over the years to define brand loyalty on a single behavioral dimension (Jacoby & Kyner, 1973). Behavioral definitions could not well interpret the way brand loyalty developed and modified in consumers (Dick & Basu, 1994).
Therefore, defining brand loyalty in terms of its psychological dynamics is needed (Jacoby, 1971; Jacoby & Kyner, 1973; Dick & Basu, 1994), this definition is known as attitudinal loyalty.

2.3.2.2 Advantage of Attitudinal Loyalty

Evaluating attitudinal loyalty is a prerequisite to understand how stimuli make customers become or remain loyal by influencing cognitive and affective processes. Attitudes are predictor of behavior for the business sector, where involves important decision-making process and critical accountability. (Bennett, Hartel, & McColl-Kennedy, 2007). Behavioral loyalty is the observable outcome of attitudinal loyalty. Companies’ profits gaining are directly linked with consumers’ behavioral loyalty expression like repeated purchasing. In order to modify behavioral loyalty (increasing brand switching to particular brand or decrease switching from that brand) by designing marketing programmes, a knowledge and understanding of the attitude towards the act of buying the brand is needed (Bennett & Rundle-Thiele, 2002).

As a long-term commitment to a brand, attitudinal loyalty is indicative of a propensity of favorable word of mouth from consumers (Reichheld, 2003).

Understanding brand loyalty in terms of its attitudinal loyalty would be very helpful for marketers in selecting and developing their target markets. Many researchers have evaluated brand loyalty by considering both behavioral and attitudinal components (Baldinger & Rubinson, 1996).
Strong and a favorable relative attitude and repeat patronage will benefit long-term loyalty maintenance (Dick & Basu, 1994).

Attitudinal loyalty is an attitudinal predisposition consisting of commitment to a brand and intention to repurchase the brand (Mellens, Dekimpe, & Steenkamp, 1996). The commitment aspect reflects the affective component of an attitude and the intention aspect reflects the cognitive or evaluative component. By considering the involvement of the “emotion” factors in this study, attitudinal loyalty is needed to test or compare with behavioral loyalty which can be more easily observed.

2.3.3 Argument between Cognition and Emotion

When talking about brand loyalty, most existing studies worked on it from the perspective of cognition; that is, they considered brand loyalty the result of a rigorous cognitive process that involved a lot of logical thinking.

Although many researchers admitted that the effect emotions exert definitively enhances the possibility of repeat purchasing and benefits to the construction of brand loyalty, the method they adopted in their studies to assess consumers’ brand loyalty usually forced the consumer to consider his or her choice in a cognitive process. The most typical case is reducing price of alternatives (Jacoby & Kyner, 1973; Tucker, 1964) that observed consumer response. The reason why most research works on brand loyalty starting from the point of cognition is because cognition is easier to test and evaluate; it is also easily verbalized,
recordable and understandable. Based on this premise, the role of products has been simplified to merely a trigger of user experience to serve the research intention of the marketer, focusing on brand loyalty and consumer experience.

Market researchers believe that one of the major facts that affect brand loyalty most is brand experience – the experiential aspect consists of the sum of all points of contact with the brand (Takamura & Ragland, 2009). All the ‘points of contact with the brand’ are in actuality consumer experiences. In the past, consumer experiences served as a plentiful resource in studies on brand loyalty. However, research based solely on the experiential aspect will not be sufficient enough to understand the entire spectrum of brand loyalty. The psychological aspect also needs to be seriously considered. Brand is a symbolic construct created within the minds of people. It is the carrier of consumers’ expectations associated with a product or service. The brand which always meets consumers’ expectations will obtain brand loyalty more easily.

Recently, brand image studies focused more on emotional attributes than original cognitive evaluation (Keller, 2003).

As compared to "product-related attributes," which tend to serve a utilitarian function for consumers, brand personality expresses brand in a more intimate way with intense emotional coloring (Keller, 1993). Researching on brand personality and its internal relationship with
consumers will enable us to set up a direct relationship between emotion and brand loyalty.

2.3.4 Research Model in Brand Loyalty Research

Brand loyalty which is more involved in the scope of marketing research has been studied and analyzed by many generations of researchers. Most of them are marketers who consider this issue in a macroscopic view – taking brand loyalty as an important output of business strategy. One critical factor which determines if a strategy is successful is the amount of consumer research being taken at the same time as business strategy research. In order to get a deeper comprehension of consumers, it is common that psychologists and sociologists are invited to help marketing efforts. This theory system has already been completely explored, because researchers have covered not only external aspects with the help of psychologists, they have also obtained large amounts of materials on internal aspects. However, the differences in knowledge structure and background have caused them to neglect a key link in commodity exchange and transaction – product, especially the design of product. Although there are some researchers who take product design into account in their studies, the role product design plays is merely an addition to the user experience. One can conclude that traditional brand loyalty research is a research of human experience, it is cognitive in nature. Marketing research logic model is demonstrated in Figure 2.3.
In this logic model, product is the stimuli of user experience which does not affect brand loyalty directly. Product, especially product design acts as a minor factor in this model. Feedbacks (or comments) given by consumers are the result of cognitive process because most of these feedbacks collected are verbal-based. They are the results of survey, interview which involve more rational thinking.

The argument regarding cognition and emotion has been going on for a long time in the field of psychology. The most compelling empirical results in support of the power of feelings Vs. cognitions are those provided by Abelson et al. (1982). Qualitative differences between conventional semantic judgments and affective reports have been found in their study. Donald Norman (2004) in his book, Emotional design: why we love (or hate) everyday things, defines emotion as an integrated concept, where by there are divisions of visceral, behavioral and reflective layers in the human thinking process. Although it seems necessary to consider emotion and cognition separately in the research of brand loyalty, this was
not considered widely in market research, outside of advertisement (Julie & Marian, 1987; Russell, Paul, & Martha, 1992). As Malhotra (2005) pointing out in his article entitled A Scale to Measure Self Concepts, Person Concepts and Product Concepts, for decades, consumer decision-making research was mostly cognitive in nature. Advertising can discuss the effect of an ad on the distinction between cognition and emotion because advertising is one of the key elements in building a brand personality (Varaprasdreddy & Ramesh, 2006), while at the same time it communicates the message of a product's function and performance. Consumers put their cognitive judgments on messages and perceive the brand personality embodied by ads at the same time.

Brand personality can be defined in several ways, with emphasis on emotion the human and tangible aspects of the brand. It can also be defined as sum of the tangible and intangible aspects of the brand (Takamura & Ragland, 2009). Thusly, regarding advertisements, the intangible aspects and emotion connection embodied by tangible aspects (product design) should be taken into account.

Based on these valuable previous studies, it is time to change the model of brand loyalty research by combining emotion; the new model is described in Figure 2.4.
Figure 2.4. Suggested Brand Loyalty Research Model

Emotion elicited by brand personality and product design is believed as mediator which provides researchers a possible way study brand loyalty from a view of product design. Self-congruence derived from brand personality promotes some positive emotions (Kim, Lee, & Ulgado, 2005), so dose product design. Brand personality in this model provides researchers a potential path to study brand loyalty from perspectives of product design and emotion.
3.1 Justification for Methodology

3.1.1 Measuring Emotions

There has long been a need for an instrument to measure emotions. Traditionally, attempts to measure emotions have been made in the field of psychology and sociology. Realizing the importance of research in these fields, consumer and marketing researchers have developed instruments which measure the emotional responses to advertisement and consumer experiences. As research on emotion has developed in a variety of areas, there has been an increase in the need for measuring instruments. As a result, various emotion measurement tools have been developed and applied in practice. None of these instruments however, appears to be applicable for the measurement of emotional responses to the physical designs of products.

Because products are now often similar with respect to technical characteristics, quality, and price, emotional responses to design may play a decisive factor in the consumer’s decision-making stage. The emotional quality of products is becoming more and more important in creating a differential advantage in the marketplace for companies.

3.1.2 Verbal Vs. Non-verbal
There are two major ways to measure emotion. One is a Verbal instrument and the other a Non-verbal instrument. Both of these instruments have their individual advantages and disadvantages.

The advantage of verbal instruments is that rating scales can be assembled to represent any set of emotions, and based on emotional description selection, verbal instruments could be applied to measure mixed emotions. The main disadvantage of verbal instruments is that they are difficult to apply between cultures. In emotion research, translating emotion words is known to be difficult because for many emotion words do not have a one-to-one, ‘straight’ translation.

The major advantage of non-verbal instruments is that, as they are language-independent, they can be used in different cultures. The limitation of most non-verbal instruments is that they are limited to a set of ‘basic’ emotions and to some extent cannot be applied to assess mixed emotions.

3.2 Instrumentation

3.2.1 Non-verbal Instrument PrEmo

Considering the above advantages and disadvantages through the integration of cross-culture emotion and cognition, the Non-verbal instrument named PrEmo (see Figure 3.0) developed by SUSA group will be applied in this research. Because the PrEmo method of measurement is computer-based, this allows for potential modification for any specific product or brand.
Figure 3.0. PrEmo Non-verbal Emotion Measurement Tool

The PrEmo instrument was developed to combine the advantages of existing non-verbal and verbal self-report instruments. PrEmo measures distinct emotions and it can be used cross-culturally because it does not ask respondents to verbalize their emotions. In addition, it can be used to measure mixed emotions, that is, more than one emotion experienced simultaneously, and the operation requires neither expensive equipment nor technical expertise.

PrEmo used in this study has 12 animated characters in place of the verbal 12 basic emotion set. Each emotion set has its own 5-point scale which could be distinguished by the background color of animated characters.
Although this tool is reported to have cross-culturally application, a pilot study was still taken in China to make sure that the tool worked for Chinese subjects. As some emotions may be over-represented and others may be missing, before PrEmo was conducted in the full study, it was tested to see if the 12 emotions were adequate, or if the set of animated characters needed to be adjusted or re-created with respect to the two different cultures studied.

3.2.2 Concept Naming

Concept Naming (Takamura, 2005), is a unique method developed based on a derivation of traditional Product Personality Assignment which was originally used by Philips design (Jordan, 2000). This tool has been mainly applied in brand-profiling studies, and has been proved to be a very useful tool in understanding the nature of the relationship between a product’s physical or formal attributes and the way consumers interpret or perceive the product’s brand (Takamura, 2007). Concept Naming helps to develop a deeper understanding of the perceptions of consumers. It allows consumers themselves to provide potential design issues from their own perspectives. It focuses more on individual design aspects and puts more emphasis on personal feelings regarding product design. Concept Naming is also a perfect method that could be incorporated with other research methods for data collection and data analysis.
3.2.3 PrEmo Concept Naming

The original PrEmo method was a computer-based instrument. The 12 measured PrEmo emotions are portrayed by an animation of dynamic facial, bodily, and vocal expressions. Within this research design and data collection procedure, PrEmo was combined with the Concept Naming methods in order to make it more flexible and easier to use in various circumstance without a computer.

With the PrEmo Concept Naming method the 12 animated characters (each with a 5-point scale based on different background colors) was made into 12 individual stickers. The 12 animated characters were highlighted in different colors on the outer edge of background in order to make it more eye-catching and easier for subjects to select.

Within this research, subjects were asked to select and stick stickers on different parts of product based on their emotional responses they have on particular area on a product regarding its design. There was no requirement on how many stickers one could use. If subjects needed to, they could use as many as they wanted. If one area of the product elicited more than one kind of emotional response, subjects were allowed to use more than one sticker on that area. There was a great deal of freedom given regarding the use of stickers because the intention was to get truest feedback from the subjects.
3.3 Research Procedures

Figure 3.1. Research Procedures

This study was done in two stages where in the first stage two pilot studies were taken in both China and the U.S. The aim of the pilot study was to prepare for the formal data collection. During this period, the research tools were modified in order to best fit the data collection requirements. Subjects’ feedbacks in the pilot study were considered as important basis of evaluation of the research tool. In the second stage, formal data collection was conducted in both the U.S. and China. All data collected was re-grouped based on the relative feedback and prepared for future analysis.

3.3.1 Literature Review

The literature review was used as a body of text that aimed to review the critical points of existing knowledge. Its ultimate goal was to bring the research up to date with the current literature on the research topics and to form the theoretical basis for it. Major academic-oriented
literature sourced in this review involved the four theoretical areas of psychology, culture, consumer behavior, and marketing.

Gaps in the existing research were found in the review and summing up of previous concepts. This literature review can be considered as the backbone of this research as it supported the theoretical conceptual framework construction and research design. It is also provided the direct theoretical ground on which the final conclusions are based.

3.3.2 Target Brand and Target Product

Apple is an American multinational corporation that designs and sells consumer electronics, computer software, and personal computers. The company's best-known hardware products are the Macintosh line of computers, the iPod, the iPhone and the iPad.

China isn't just where Apple manufactures products. It is now the country that delivers the most revenue for the company after the U.S. Recent data shows that, for the fourth quarter of 2011, China contributed $4.5 billion, or 16 percent of the $28.7 billion in total revenue the company reported (Ogg, 2011).

Apple is a global brand and it has drawn great success in both the U.S. and China market. Apple has a great number of brand loyalists all over the world and there is also rapid growth in the number of brand loyalists in China in the past few years.
Since China is so unique, it has a different cultural background compared with the western world, and also a different ideology and market mechanism with its Asian neighbors Korean and Japan.

This study began in 2010 when the 1st generation of iPad came into being. The iPad is a line of tablet computers. Its size and weight fall between those of contemporary smartphones and laptop computers. As a new product compared with the previously well received Apple iphone, the iPad was a perfect product to review Chinese Apple brand loyalist’s attitudes.

In short, the iPad was used as a target product mainly for 4 reasons:
- Huge potential user groups in both China and U.S.
- Stable and Strong Brand Loyalty
- Product design with a new marketing positioning could possibly generate new brand personality
- It was the most ideal product to test consumers’ brand loyalty, because it was totally brand new.

3.3.3 Sampling Strategy

Subjects were selected randomly in both China and the U.S. 30 subjects for each country was an ideal number for the study.

Considering that the purchasing power of Chinese consumers is lower than other developed countries, the data collection site was selected mainly in or around Apple shops and local distributors’ shops - the places where Apple potential purchaser gathered.
For teenagers, fashion is first and foremost a social statement. It is an outward means of expression to their peers and the rest of the world, meanwhile, fashion also provides teenagers a sense of identity by signaling which “group” they belong to. It may also signal a more independent or inclusive personality. Since teenagers are considered a major group chasing after fashion trends, subjects were also recruited on college campuses in both U.S. and China.

Although there was no limitation on participant age in principle, the subjects consisted of mainly young people age 20 – 28.

3.3.4 Pilot Study

Pilot Study was divided into two stages.

The survey in this study was designed to help divide subjects into different groups based on their answer on some key questions. The 1st pilot study was undertaken both in China and U.S. in order to modify questions in survey. 5 participants were recruited in each country. This pilot study was first taken in the U.S., respondents were requested to complete a survey, in English, that was designed to collect basic information on consumer attitudinal loyalty on Apple, and other quantitative information about their using and purchasing of Apple products. The researcher then went through the answers to see whether there are any questions that needed to be removed or modified. Once all the questions were confirmed, the survey was translated into Chinese and sent to the Chinese participants in the study.
Based on Choong and Salvenday (1998), Americans and Chinese have different cognitive styles, and so the translation was not only just a language issue. In order to express the same message to the Chinese participants, some questions needed to be re-designed considering the Chinese logic and expression style.

Sample of two language versions survey are as follows:

English Version:

Warm-up Questions:
1. Have you bought the newest product from Apple – ipad?
   If not, do you plan to purchase iPad in the future?
   How do feel about the price of ipad so far, is it reasonable?

Primary Questions:
2. How many Apple products do you have up till now?
3. How long have you been using Apple products?
4. What was the main reason for you to choose Apple than other brand?
5. Will you consider alternatives if the same kind product sold by Apple is more expensive?
6. Will you keep purchasing Apple products and continue to support this brand?
7. May I know what has made you keep purchasing Apple products?
8. Do you consider yourself as a fan of Apple? Why or Why not?

Chinese Version

Warm-up Questions:
Primary Questions:

1. 你购买了苹果最新产品iPad了吗？

2. 你计划购买iPad吗？

3. 你认为iPad的定价是否合理（目前来看）？

The 2nd pilot study was only undertaken in China and its aim was to test the cross-cultural application of the PrEmo method. Twelve Chinese volunteers were recruited at this stage to help test whether the 12 animated character based emotion set worked for them.

The results showed that all the Chinese respondents could read the 12 animated characters correctly and that no one got confused. When asked about whether the 12 emotion set was enough, they all gave
positive answers. It was then decided that no changes of 12 animated characters would be made and they were directly combined with the Concept Naming method for the formal data collection procedure.

3.3.5 Survey

In this stage, a total of 65 people were invited to participate in the survey and following PrEmo Concept Naming test (38 in China; 27 in U.S.). 52 people (29 in China; 23 in U.S.) accepted the invitation however 20% of those invited declined to participate in the final count (23% in China, 14% in U.S.). The samples had slightly more men than women, the mean age was 23 years old. Survey questions were designed to test participants’ attitudinal brand loyalty from both subjective and objective perspectives. The survey was paper-based and before respondents answered questions a short introduction about the study and several warming up question were given.

Based on the participants’ answers, they were divided into 4 groups in data analysis stage. After finishing the survey questions, participants were asked to use PrEmo characters stickers to describe their emotional feeling about iPad product design.

3.3.6 PrEmo Concept Naming

In this stage, participants were asked to use stickers that were prepared to describe their emotional feedback on the iPad’s product design (see Figure 3.2).
Figure 3.2. PrEmo Concept Naming

Once the participant reported that he/she had finished the PrEmo Concept Naming, the results were photographed and organized as follows (see Figure 3.3)
Based on the 4 group divisions, a final 40 sets of data (24 for China, 16 for US) were accepted and prepared for data analysis. The criteria for group divisions will be described in the following chapter – Data Analysis.
Chapter 4
DATA ANALYSIS

4.1 Body of Document

4.1.1 Data Regrouping

4.1.1.1 Report of Survey

At the 1st stage of data collection, a total 52 (29 from China, 23 from US) interviewees accepted invitation to participate and complete the survey. The main themes that arose from this stage centered on identifying consumer’s attitudinal loyalty and their experience with Apple products. This study was based on the subject’s responses on the following core questions:

- How long have you been using Apple products?
- How many Apple products do you have up till now?
- Will you keep purchasing Apple products and continue to support this brand?
- Do you consider yourself as fan of Apple?

The conclusions to the above questions have been drawn as follows:

1. 10 interviewees (8 from China, 2 from US) reported that they used or are using Apple products, while also considering themselves to be an Apple fan.

2. 10 interviewees (2 from China, 8 from US) reported that they used or are using Apple products but they considered themselves not to be an Apple fan. In another words, they didn’t feel to be brand loyal to Apple.

59
3. 14 interviewees (14 from China, 0 from US) reported that they had never used an Apple product before but still considered themselves to be an Apple fan.

4. 12 interviewees (4 from China, 8 from US) reported that they do not use Apple products and they admitted that they were not an Apple fan.

5. 6 interviewees (1 from China, 5 from US) were not sure about whether they have brand loyalty to Apple or not. This group of data was eliminated in data regrouping stage.

4.1.1.2 Categories of Data Regrouping

The interviewee data clearly showed different patterns regarding feedback on experience with Apple products and individual attitudinal loyalty. Two major categories were considered in the data regrouping process. The 1st category was if the respondent was an “Apple product user”, and the 2nd category was if the respondent considered themselves to have “brand loyalty to Apple”.

Based on the above two categories and the subject feedback on the previous survey, Interviewees were divided into four groups:

- Apple User/Apple Fan (AU&AF)
- Apple User/Not Apple Fan (AU&NAF)
- Not Apple User/Apple Fan (NAU&AF)
- Not Apple User/Not Apple Fan (NAU&NAF)
12 sets of data were not included in data analysis based on group division, although all 52 interviewees participated in the following stage of data collection – PrEmo Concept Naming.

The 12 sets of data included:

- 6 interviewees who were not sure about their brand loyalty.
- 4 interviewees from NAU&AF group (in order to keep each group within the same number of interviewees).
- 2 interviewees from NAU&NAF group (in order to keep each group within the same number of interviewees).

4.1.1.3 Summary of Survey Data

Based on the general observation of data in the four different groups, results show that people from the U.S. represented less brand loyalty than people from China. Only 2 interviewees from the U.S. confirmed that they have brand loyalty with Apple, 5 were not sure, and the remaining 16 reported that they did not have brand loyalty to Apple even though some of them had been using Apple products for years.

In retrospect, regarding the Chinese interviewees, 22 of the 29 reported that they felt brand loyal to Apple equaling almost 76%. It is worthwhile to note that the NAU&AF group was the one which only consisted of Chinese Interviewees.
4.1.2 Organization of PrEmo Data

By reducing the 12 sets of Data based through group division, 40 sets of PrEmo data remained and were organized based on the iPad design layout.

4.1.2.1 Area Division of iPad

Based on its dimension and its own design features the iPad was divided and represented in following ways (see Figure 4.0).

![iPad Design Layout](image)

*Figure 4.0. Basic Area Division of iPad*

To avoid needless trouble in data analysis, some separated design features were combined and considered as one design feature, for example - “volume up/down button” and “screen rotation lock switch”. By following this principle, the iPad was divided into the following 14 areas (see Figure 4.1):
4.1.2.2 Master Sets

The PrEmo data collected was represented in following way based on the iPad Area division.
By using a Master Set of data, clear views of each specific data (for example - what kind of emotion represented based on specific design feature and its emotion level) provided the researcher with a more convenient way to view the data distribution.

After combining all of the interviewee’s data together, a master set of PrEmo data (Non-verbal emotional description data) based on 4 group division was generated (see Figure 4.3)

*Figure 4.3a. Master Set of AU&AF*
Figure 4.3b. Master Set of AU&NAF

Figure 4.3c. Master Set of NAU&AF
4.2 Data Analysis & Findings

4.2.1 Positive and Negative Emotions

Based on the facial expressions of animated characters of PrEmo Tool, Emotion feedbacks were divided into two major groups – Positive Emotions and Negative Emotions (see Figure 4.4)

![Figure 4.4. Positive and Negative Emotions Definition](image-url)
4.2.2 Data Analysis based on Group Division

Two variables of PrEmo data were tested based on different groups at this stage. Variable one was the number of how many emotions had been reported and variable two was the mean of the emotion level. A horizontal comparison of four groups was then made.

The comparison was conducted based on the iPad area division at the same time, which the researcher could better review how these emotion feedbacks interacted with different design features of the iPad. This was beneficial in the analyzing of design details on the iPad based on the PrEmo data.

Data report based on Group Division:
Number Reported | Mean Arrangement
---|---
G1-AU&AF | G2-AU&NAF | G3-NAU&AF | G4-NAU&NAF
Number Reported  Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF

69
Number Reported

Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF

70
Number Reported | Mean Arrangement
--- | ---
G1-AU&AF | G2-AU&NAF | G3-NAU&AF | G4-NAU&NAF
Number Reported

Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF
Number Reported Mean Arrangement
G1-AU&AF G2-AU&NAF G3-NAU&AF G4-NAU&NAF

73
Number Reported Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF
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75
Number Reported Mean Arrangement
G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF

76
Number Reported     Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF
Number Reported

Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF

78
Number Reported

- G1-AU&AF
- G2-AU&NAF
- G3-NAU&AF
- G4-NAU&NAF

Mean Arrangement
Number Reported | Mean Arrangement
---|---
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<td>G4-NAU&amp;NAF</td>
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</tbody>
</table>
Number Reported  Mean Arrangement

G1-AU&AF  G2-AU&NAF  G3-NAU&AF  G4-NAU&NAF
4.2.3 Findings based on Group Division

4.2.3.1 General Findings

Data density:

In general, participants reported more positive emotions than negative ones in numbers. Groups that announced brand loyalty to Apple (Group 1 - AU&AF, Group 3 - NAU&AF) reported more emotions than the other two in numbers. Apple fans were generally more sensitive to Apple product design feature regarding emotional responses.

Data strength:

No patterns were found indicating obvious differences on emotion strength levels. Groups that announced brand loyalty show slightly more advantages than the other two in positive emotion strength level.

4.2.3.2 Specific Findings

The results of 1-4, 2-4, 4-1 and 5-1 shows that the Group that announced brand loyalty focused more on specific design features.
The result of 1-4, 2-4 well demonstrated that Apple users are more sensitive than Non-Apple users on design details.

Emotion reported based on the 14 area divisions are shown in Figure 4.6. Positive and Negative emotions are listed in this chart instead of reporting specific emotion, to briefly describe and review how different design features of the iPad affect emotion.

\[ \text{Figure 4.6. Positive/Negative Emotions based on Design features of iPad} \]
In order to better understand how emotions interact with the iPad design, the following curve chart was developed to present the general trends (see Figure 4.7).

![Figure 4.7. Emotion Analysis based on Design Feature of iPad](image)

In this curve chart, the X-axis represents design features based on the 14 area divisions of the iPad. The Y-axis represents emotion ratios of Positive Emotion to Negative Emotion (y<1, Positive Emotion < Negative Emotion; y>1, Positive Emotion > Negative Emotion).

The data shows that 1-2 and 5-2 are the only two areas that reported more Negative emotion than Positive emotion with y values that were below 1.0.

2-4 and 5-1 share the maximum value of y (y=10), and based on these findings it can be concluded that these two design features are easier to trigger off positive emotions.

4.2.4 Data Analysis based on Culture Comparison

The two variables of PrEmo data were tested regarding two different cultures. Variable one was the number of how many emotions had been reported and variable two was the mean of emotion level. A horizontal comparison was taken between China interviewees and US
The data report based on this Culture Comparison was as follows:

<table>
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<th>Mean Arrangement</th>
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<tbody>
<tr>
<td>G1-AU&amp;AF</td>
<td></td>
</tr>
<tr>
<td>G2-AU&amp;NAF</td>
<td></td>
</tr>
<tr>
<td>G3-NU&amp;AF</td>
<td></td>
</tr>
<tr>
<td>G4-NAU&amp;NAF</td>
<td></td>
</tr>
</tbody>
</table>
4.2.5 Findings based on Culture Comparison

4.2.5.1 General Findings

Data density:

In general, participants reported more positive emotions than negative ones in numbers. Chinese interviewees reported more emotions than the US interviewees in numbers. Chinese interviewees reported more positive emotions than negative, the ratio was 2.9 (Positive/Negative) which was higher than the 2.3 results in US.

Data strength:

No pattern shows that there were obvious differences on emotion strength level.
4.2.6 Conclusion

The following two master sets show the general patterns of how Non-verbal emotional descriptions were distributed based on the iPad’s design.

*Figure 4.9a. Emotion Arrangement Analysis for all 40 interviewees*

*Figure 4.9b. Emotion Strength Level Analysis for all 40 interviewees*
Chapter 5
CONCLUSION

5.1 Summary

This research examined the interrelationship between emotion and brand loyalty in a cross-cultural context, and attempted to provide the introductory antecedents for brand loyalty in this context. Design implication was considered based on the data of emotion. The findings based on the data were summarized as follows:

1. Users with brand loyalty presented more emotional feedbacks both in positive and negative than ones without brand loyalty.
2. Findings showed that there are no obvious differences in the strength level of emotional feedbacks in different groups.
3. Users who have user experience with Apple but no brand loyalty reported less emotional feedbacks than users who announced brand loyalty but without user experience.
4. There is a special group existed in Chinese respondents which majorly consist of people who have brand loyalty but without user experience.
5. Chinese respondents are more sensitive in emotional feeling of product design than American respondents.
6. There are no obvious differences in strength level of emotional feedbacks of respondents in two different cultures.
7. Two design features of 1st Generation iPad have been reported that drawing more negative emotions than positive ones.
5.2 Discussion

This study indicated the possible correlation between consumers’ emotion and brand loyalty. Previous research on this topic has been very limited. Emotion has been considered difficult to evaluate in brand loyalty study for very long time.

The correlation between consumers’ emotion and brand loyalty is a highly relevant issue for marketing researchers, brand strategists, designers, and especially for researchers and practitioners who are specifically interested in developing brand loyalty. Consumer’s emotions may represent or predict brand loyalty based on their coherence.

Although only a cross-cultural comparison conducted in both emotion expression and brand loyalty between China and the U.S. were initially studied, the results based on this preliminary study will benefit global marketers and culture researchers.

5.2.1 Emotion and Brand Loyalty

The 2nd hypothesis in this research on conformity between attitudinal brand loyalty and emotional responses was confirmed. The findings showed that loyal consumers reported more emotional feedbacks than the others. Although this pattern was merely represented in numbers rather than strength levels, there is still reason to believe that consumers’ emotions reflect brand loyalty to some extent. The results of this research highlight the relevance between emotion and brand loyalty. Brand loyalty strengthens consumer’s emotion bond with a target brand through its
product carrier in that loyal consumers show more sensitivity on emotion elicited by detailed design features.

This kind of amplificatory effect and emotion sensitivity is however, a double-edged sword. Results in this study showed that both positive and negative emotions are produced. Loyal consumers prefer to report more negative emotions than positive. Brand loyalty only appears to magnify rather than change emotion.

In this study, brand personality is believed to be an important medium that links brand loyalty and emotion together. Referring back to section 2.3.3, Belk (1988) and Malhotra (1981) concluded that brand personality provides a way for a consumer to express his or herself. Consumers consider the brand as a self extension, and try to set up self-congruence with specific brand. Kim et al (2005) indicated that self-congruence between brand personality and brand loyalty could promote some positive emotions and could benefit the brand-consumer relationship. This indication has been strongly indicated in this study. Previous studies commonly considered emotion and brand loyalty as outcomes of brand personality. In this study, the focus of attention is centered on how brand personality interacts with these two outcomes and its link function.

Brand loyalty is believed as a predictor of emotion, and it is the same in reverse. In the future, researchers may focus more on the interaction between brand personality and emotion, emotion and brand loyalty. The role brand personality plays in this relationship should be also
investigated, in order to provide stronger support on emotion’s conformity with brand loyalty.

5.2.2 Loyal Consumers without User Experience

The 1st hypothesis – Culture differences will affect brand loyalty, especially on attitudinal loyalty was also confirmed in this study.

Data analysis shows that there is a special group within the Chinese respondents who never owned or had an experience with an Apple product but reported themselves to be brand loyal.

This unexpected result (Chinese special group – Not Apple user/Apple fan) implies there can exist a separation between brand loyalty and user experience. This independence of these factors is strongly indicated in the data. Brand loyalty appears to stand alone without the support from user experience which is cognitive in nature. Most respondents in this group had never owned an Apple product although some may have experience them in Apple stores. It is the opinion of this researcher that the user experience provided by Apple stores is incomplete and insufficient. The understandings of Apple products are confined to one or two products for these respondents. Respondents could not gain a more comprehensive understanding of this brand without a long-term user experience.

So what made these Chinese respondents announce their brand loyalty so confidently and affirmatively?
The research devoted a lot of space to repeatedly stress brand personality and how it co-works with emotion and culture through its self congruence with human personality. Looking back to the conceptual framework of this study, emotion, culture, and brand loyalty have been connected in following logic sequence (see Figure 5.0)

Figure 5.0. Connection between Culture, Emotion, Cognition and Brand Loyalty

Note that there is no sufficient user experience for respondents in this group, logic frame in modified as shown in Figure 5.1.

Figure 5.1. Connection between Culture, Emotion, Cognition and Brand loyalty edition for NAU&AF user group
Although the model above shows that cognition derived from objective reality contributes to brand loyalty construction for these respondents, it is believed that subjective factors are still the central one that determines their loyalty. Two possible explanations are that emotion and culture tend to be crucial elements that make respondents announce their brand loyalty without any user experience.

Balaji and Raghaven (2009) in their model described the marketing communications affect on consumer’s perceptions of brand. It is a known fact that people in China and U.S. are different in the ways they accept and process information (Fang & Rau, 2003) and this conclusion is also supported by Choong and Salvendy (1998) in their study testing the impact of cultural differences between the U.S. and Chinese cognitive styles and thought processes. One can not simply rule out the possibility that cultural differences in information acceptance mechanism may influence the outcome of marketing communications. Culture affects a consumer’s loyalty both subjectively and objectively by shaping his/her human personality and affecting his/her behavior and thoughts under particular circumstance. Further study is necessary to validate this finding.

Section 2.1.3 presented a discussion on the independence of emotion and cognition from the perspectives of neurology, psychology and other relative subjects.

A shift from cognitive research to emotional research has occurred in brand personality and other branding-related research (Keller, 2003; Da
Silva et al., 2006). Emotion’s influence on brand loyalty found in this study confirms this shift once again. More research should be conducted in differentiating the emotional and cultural effects on brand loyalty construction.

5.2.3 Culture and Emotion expression

Based on the data reported in this study, Chinese respondents are more sensitive in emotional feelings regarding product design than American respondents.

Ekman (1972) believed that the basic emotions like anger, fear, sadness, happiness and disgust are expressed and perceived in similarly across all cultures. In the pilot study, both Chinese and Americans reported that the animated characters developed by PrEmo worked for them which supports Ekman’s point. With regards to the display of emotions, especially when we focus on more specific parameters like emotion expression intensity or strength, this kind of similarity no longer seems a hard and fast rule.

Previous studies have already confirmed that culture differences affected personality, social value (Garolera, Benet-Martinez, & Aaker, 2001), cognitive style (Fang & Rau, 2003) and behaviors (Maehle & Shneor, 2010). Influences of culture differences on emotion expression intensity have also been found in this study.

This finding indicates that it is vital to take into consideration the differences in emotional expression of different cultures. Future research
tools designed for emotion measurement should also attach weight to its applied nature in a multi-cultural context.

5.3 Future Implication

5.3.1 Limitations and Directions for Future Research

Much has been learned about the interrelationship between brand loyalty and emotion, brand loyalty and culture, culture and emotion, but much more is left to be done. As with all research, the limitations of this study must be considered.

5.3.1.1 Insufficient respondents and lacking of time

Generating regularity of emotion patterns for one person alone is difficult, and needless to say working with the emotion data of scores of respondents from two different cultures is infinitely more difficult.

General scientific regularity of emotion will not be achieved unless extensive data are collected. For example, no obvious pattern has been discovered based on emotion expression strength level data, so more respondents recruiting is suggested for future research in this area.

Considering the purchasing power of Chinese customers, for this study, most Chinese respondents are recruited in one place - Apple store. American respondents are recruited in several different places such as campus, shopping malls and so on. PrEmo data collection stage needs to be done in the same context in future research in order to minimize the influence from external circumstances.
There may exist inconsistency in emotion expression for each respondent, so future research may consider keeping track of each respondent’s emotional feedback regarding different times and locations if the conditions and technologies permit.

5.3.1.2 Verbal and Non-verbal comparison

Each emotion is associated with a particular expression (Ekman, 1994). Non-verbal instruments are developed based on facial expressions of emotions. The major advantage of Non-verbal instruments was that they can be used across cultures. Another advantage is that they are unobtrusive since they do not disturb participants during measurement (Desmet, 2005). However, this instrument has been reported as not being able to assess mixed emotions very well (Desmet, 2005). On the other hand, one major advantage of verbal instruments is that they can assess mixed emotion.

There are two major reasons why verbal instruments were not used in this study.

First, emotions reported by using a verbal measurement instrument may involve cognitive interference. Moreover, the limitation of translatability between Chinese and English is also a concern because these two languages belong to two very different language families. Difficulty in portraying emotional feelings in words makes translation even harder. To minimize the influences caused by subjective factors of
researcher in the translation process, verbal instruments were not considered in this study.

But it is still believed that a deeper separation and independence between cognition and emotion will be found if a comparison between the emotion data reported by verbal and non-verbal instruments is conducted. It may be possible to see how cognition affects emotion expression by using words and there is still much to do on testing and refining the ideas described above concerning cultural comparison and translatability. In order to ensure translatability (e.g. different cultures shared allied languages or same language), the multi-culture comparison of emotion by using both verbal and non-verbal is encouraged. Several productive areas of future research might examine the effect of emotion as well as the role of cognition on brand loyalty construction cross-culturally.

5.3.2 Strategic Implications

Brand personality is a subject deserving of study, Brand personality enhances brand trust and preference (Sirgy, 1982; Fournier, 1998) and improves brand loyalty (Kressman, Sirgy, Herrman, Huber, & Lee, 2006). Jeep Wrangler, as SUV, has been reported having more problems on electrical, suspension and other aspects than its competitors. However, it is still popular and shares a great amount of consumers. Actually, very few people buy a Jeep Wrangler for its practicality. As Wrangler buyers, they usually care less about ride comfort, in turn, focus more on kind of entertainment Jeep Wrangler could bring about based on
its crude personality as its appeal looks like. Just as Wrangler buyers concluded, if you want top down, off-road fun, you should try a Wrangler. They were connected with this SUV by kind of emotional, brand personality-like stuff. Jeep Wrangler has offered them the most convenient way to express themselves, this self-expressive function is also the reason why brand personality is so important.

Referring back to Figure 5.1, Culture differences influence brand loyalty through brand personality. There is a general brand personality defined by a company and accepted by consumers. For Apple, it attempts to present kind of brand personality which emphasizes on making people’s lives easier. Apple’s products are perceived easy-going, intuitive, stylish, and innovative by most consumers. Apple enjoys a great attitudinal loyalty all over the world. However, the results of Chinese special group showed that there exist an obstacle which prevents this attitudinal inclination to an actual repeat purchasing behavior. Based on Figure 5.1, different cultural background is believed adding various “bonus” on generally accepted brand personality. Personality corrected by culture is believed the core reason why Chinese checked their steps in front of an actual purchasing behavior.

No matter North America, Asia, Europe or other parts of world, general personality Apple want to present is never changed. But people may perceive brand personality differently based on their social values, personal experiences and other factors which mainly affected by their
cultural background. A pointed brand strategy and an appropriate execution considering cultural influences on consumers’ brand personality perception is believed could transforming consumer’s attitudinal loyalty to behavioral loyalty.

Most Chinese consumers still concentrated on brilliant product design of Apple. Of course, perfect product design is necessary for every product, Apple did a great job here. However, elegant, unique design made a significant portion of Chinese consumers accept Apple as a luxury brand. Many potential consumers have to be turned away from Apple because this marketing positioning, especially when the purchasing power of Chinese consumers is considered.

For Apple, more emphasis should be attached on their brand personality expression rather than the technology and product design. Apple need to convince Chinese consumers that Apple could benefit their daily life by using Apps which are developed based on Apple iOS system. Consumers’ concentration need to be guided on experiences with Apps rather than functionality of iOS system. Apple could try to introduce some cheap but innovative apps to Chinese consumers and tell them what kind of benefits they could get from these apps by using Apple’s product like iPhone, iPad. Apple need to figure out a way that they could inform Chinese consumers their ideas – making people’s lives easier.

Through the lack of consideration of cultural differences, brands will fail the test of the global market economy in terms of brand loyalty.
Brand strategists should attach greater importance on cultural issues when expanding to the international market. The deeper understanding they have on cultural differences, the easier and more effective their brand strategies will work.

5.3.3 Academic Contributions

Branding research studies, especially those that have been conducted in a marketing context, should focus more on qualitative data such as emotion than quantitative aspects such as cognition. Previous studies on brand loyalty are mainly cognitive in nature, This research model is illustrated in figure 5.2.

![Figure 5.2. Existing Brand loyalty Research Logic Model](image)

The important factor of emotion has been neglected or weakened in this model. This research has confirmed that emotion could act as an important predictor of brand loyalty based on the conformity between them.

Moreover, there is little theoretical research on brand loyalty from the perspective of product design. Based on this study, a model for future
branding researchers to consider is recommended when planning to study brand loyalty and product design together.

![Suggested Brand Loyalty Research Model](image)

*Figure 5.3. Suggested Brand Loyalty Research Model*

Emotions elicited by brand personality and product design is believed to be a mediator that provides researchers a possible way to study brand loyalty from a view of product design. Self-congruence derived from brand personality promotes some positive emotions (Kim, Lee, & Ulgado, 2005) and so does product design.

5.3.4 Future Design Implications

Two design features of 1st Generation iPad have been reported that drawing more negative emotions than positive ones (see Figure 5.4)
Figure 5.4. Design features which have been reported drawing more Negative Emotions

New generation iPad design could take this into account in their future design attempts. Deeper implications have been drawn on emotional design issues. Brand personality act as a medium that connects consumer’s emotion and brand loyalty together. Product design is also believed an important carrier of brand personality. Considering the interrelationship between product design, consumer’s emotion and brand personality, this study indicated that the emotional design could be considered from the perspective regarding brand personality. Brand personality may provide designers a shortcut when they considering emotional design on some pure functional products, such as key. Guiding by brand personality expression, designer controls his or her emotional design through a top-down process, considers their product design under more broad vision. Brand personality study should be encouraged being conducted on product design. Design a product which enables accurate brand personality expression will be an interesting and challenging issue
for designers in the future which could also be considered in future design education.
REFERENCES


APPENDIX A

SURVEY ENGLISH VERSION
Brand Loyalty and Product Ownership Survey

1. Have you bought iPad, the newest product from Apple?
   - Yes
   - No
   - Not sure

2. If not, do you plan to purchase iPad in the future?
   - Yes
   - No
   - Not sure

3. How do you feel about the price of iPad so far, is it reasonable?
   - Yes
   - No
   - Not sure

4. How many Apple products do you own?
   - None
   - 1-3
   - 3-5
   - 5+

5. How long have you been using Apple products?
   - Less than 1 year
   - 1-3 years
   - 3-5 years
   - 5 years+
6. What was the main reason for you to choose Apple than other brand?

7. Will you consider alternatives if the same kind of product sold by Apple is more expensive?
    Yes
    No
    Not sure

8. Will you keep purchasing Apple products and continue to support this brand in the future?
    Yes
    No
    Not sure

9. May I know what has made you keep purchasing Apple products?

10. Do you consider yourself as a fan of Apple?
    Yes
    No
    Not sure
APPENDIX B

SURVEY CHINESE VERSION
苹果产品使用情况调查

1. 你购买了苹果最新产品 iPad 了么？
   - 是
   - 不是
   - 不确定

2. 你计划购买 iPad 么？
   - 是
   - 不是
   - 不确定

3. 你认为 iPad 的定价是否合理（目前来看）？
   - 合理
   - 不合理
   - 不知道

4. 你目前拥有多少个苹果产品？
   - 没有
   - 一到三个
   - 三到五个
   - 五个以上

5. 你使用苹果产品多长时间了？
   - 低于一年
一到三年  
三到五年  
五年以上  

6. 你选择苹果这个品牌的原因是什么？  

7. 会不会因为苹果产品价格较高而去考虑其他产品？  
   会  
   不会  
   不确定  

8. 你会继续购买苹果产品并继续支持这个品牌么？  
   会  
   不会  
   不确定  

9. 是什么原因促使你持续购买苹果产品？  

10. 你觉得自己是果粉么？  
    是  
    不是  
    不知道
APPENDIX C

MASTER SETS OF PREMO DATA
AU&NAF – 1C

AU&NAF – 2U
NAU&AF – 3C

NAU&AF – 4C
NAU&NAF – 9C

NAU&NAF – 10U
APPENDIX D

CONSENT FORMS ENGLISH VERSION
INFORMATION LETTER-INTERVIEWS

PrEmo Test

Date

Dear ______________________:

I am a graduate student under the direction of Professor John Takamura in the School of Design Innovation in Herberger Institute of Design and the Arts at Arizona State University. I am conducting a research study on brand Apple to investigate potential relationship between consumers' emotion responses, product design and brand loyalty.

I am inviting your participation, which will involve an interview and a short product emotion test. The duration of your participation could be 40~50 minutes total. During the interview, you can skip any questions if you want to do so. The emotion test aims to test your emotion response to product design, it is very simple, direct test and what you need to do is just attaching cartoon stickers on the part (of particular product) on which you have special emotion feeling. You have the right not to answer any question, and to stop the interview at any time.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. You must be 18 or older to participate in the study. Your responses to the interview will be incorporated in my next generation ipad design after appropriate analysis process. Although there is no benefit to you, possible benefits of your participation are if Apple once considers my design
proposal seriously, it will be possible that your expectation on this product will be satisfied. There are no foreseeable risks or discomforts to your participation.

All information obtained in this study is strictly confidential. In order to maintain confidentiality of your records, Yonghao Qu will use number or code for data classification and storage. Only principle investigator John Takamura and co-investigator Yonghao Qu will have access to the confidential information. And all those information will be kept on campus. Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be identified.

Audio files will be kept in co-investigator’s personal laptop for about 4 months until the data collection and analysis parts are finished. Only co-investigator Yonghao Qu has the accessibility to these files. All files will be deleted after that.

If you have any questions concerning the research study, please contact the research team at: John Takamura, School of Design Innovation, Herberger Institute of Design and the Arts, Arizona State University, P.O Box 872105, Tempe, AZ 85287-2105. Phone: 1 – 480 – 965 – 7171 and Yonghao Qu, School of Design Innovation, Herberger Institute of Design and the Arts, Arizona State University. Address in US: 1201 S, McClintock Dr, EL Diablo Apt#126, Tempe, AZ, 85281. Address in China: No. 1 Jixian Str, Shahekou District, Dalian, China, 116021. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office.
of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study.
APPENDIX E

CONSENT FORMS CHINESE VERSION
采访说明

用户情感设计以及相关品牌热衷效应研究

日期

亲爱的____________________

我是亚利桑那州立大学 Herberger 设计与艺术学院工业设计专业的研究生，我叫曲永豪。在我的导师 John Takamura 教授的指导下，我旨在进行一项关于用户产品热衷度、用户情感（基于产品设计）以及二者潜在关系的研究。

我恳请您能够协助我完成这个调查。整个调查过程大概会持续 40 到 50 分钟。期您将会被要求接受一个简短的采访和完成一个很简单的关于用户情感的小测试。采访过程中如果您觉得有些问题您不便回答，你可以跳过它，继续回答其他的问题。接下来的用户情感测试的流程非常简单，您只需要将事先准备好的，代表人类特定情感表达的卡通贴纸贴在您认为能够表现这种情感的地方即可。在这个测试中，苹果公司的 iPad 将会被用作测试品。您可以随时退出这个调查，请记住，这是您的权利。

作为参与这项调查的条件，您必须为年满 18 岁的成年人。您的参与是非强制性的，您可以随时退出这项调查而不受到任何利益损失。

您在调查中所提供的信息，将会体现在我最终的二代 iPad 设计当中，尽管对您的直接受益并不明显，但这个研究所能带来的好处是一旦我的设计提案被苹果公
司采纳，作为间接受益人，您个人对苹果产品，尤其是 iPad 的一些期待将会被最大限度的实现。本调查不存在任何风险，您可以放心参与。

您提供的信息将被视为高度机密。为了确保相关信息不会被泄露，我将会使用数字编号或字母标识来标识您的身份信息。只有研究负责人 John Takamura 教授和研究执行人：曲永豪，也就是我才能够接触到这些信息。这项研究的结果可能会用在一些学术报告，学术出版物和 PPT 讲演中，不过请您放心，在以上活动中，任何关于您身份的信息不会被使用。

采访过程中我将会录音，当然只有在征得您允许的情况下。如果您不希望您的谈话被记录，您可以直接告诉我，我将会尊重您的决定。即便是在采访录音已经开始的情况下，如果您觉得有所不妥的话，可以随时要求停止录音并删除之前的录音内容。决定权在于您，我将会充分尊重您的选择。您的录音将会被保存在我的私人电脑里，在数据分析过程结束后，我保证所有的录音会被删除。

如果您对这项研究和调查有疑问，请联系我们研究团队。

研究负责人美国联系方式：美国亚利桑那州坦普市，亚利桑那州立大学 Herberger 设计与艺术学院新产品研发系，John Takamura 教授，邮编 85287-2105。联系电话：1-480-965-7171。

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关于此项研究，如果您还存在疑问或者您认为研究会给您带来风险，你可以拨打号码：1-480-965-6788致电亚利桑那州立大学 Research Integrity and Assurance办公室来取得和美国人类学科制度审查委员会的联系。
APPENDIX F

IRB CERTIFICATE
To:                Jane Tuckerman
AED

From:              Mark Rose, Chair—JRA
Director—EPD

Date:              06/29/2000

Review No. Action:  Exemption Granted

IRB Action Date:   05/29/2000

IRB Proposal #:    1006606-09

Study Title:       Contractual Liaison

The above referenced method of human subject research to be reviewed by the Institutional Review Board pursuant to Federal regulations 45CFR46.104(d). This protocol conforms to the ethical guidelines set forth in the Helsinki Declaration and in 45CFR46.101(b). The information recorded by investigators is such a manner that subjects cannot be identified directly or through identifiers linked to the subjects. It is necessary that the primary investigator and the responsible department review the research, to reasonably protect the rights and welfare of the subjects by protecting confidentiality or by damaging to the subject's right to privacy, or safety, or health.

You should keep a copy of this letter for your records.