Exploring Relationship among Brand Innovativeness, Brand Knowledge and Brand Loyalty: A Case Study of Huawei Smartphone

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Abstract
This study explores an impact of brand knowledge and brand innovativeness on brand loyalty. It is a case study of Chinese who has currently used Huawei smartphone in any series. The study applied explanatory and exploratory mixed method sequential designed by Creswell (2009). Both pilot study with two rounds of interview and literature reviews has produced the proposed conceptual model paralleled with questionnaire designated. Multiple Linear Regression (MLR) technique to measure two relationships amongst brand knowledge, brand innovativeness, and brand loyalty. Statistical Analysis System (SAS) has been applied. One hundred percent from 136 sets of questionnaires were distributed via Wenjuanxing in China (online survey) during mid-September to mid-October, 2018. As a result of quantitative analysis, MLR shows that brand innovativeness has the greatest significant relationships with brand loyalty while there is no significant relationships between brand knowledge and brand loyalty. This study will greatly updated researchers and practitioners understand the complex relationships between brand innovativeness, brand knowledge, and brand loyalty towards Huawei smartphone in China.

Keywords: Brand Loyalty, Brand Innovativeness, Brand Image, Brand Awareness, Huawei Smartphone

Introduction
Sullivan (2004) defined brand as the most precious asset of a firm, which leads to improve brand management in the firm. Peters (1999) stated that branding is used to differentiate products or services of a firm from those of its competitors. Nowadays, it is very difficult to build a successful brand. In order to create a strong brand, companies need to develop successful strategies to pay attention to internal and external factors which are influencing the brand itself. Moreover, Aaker (1991) also mentioned that value of a brand will be increased by brand loyalty of buyers. This means those who are repetitively purchase for a long period of time. Therefore, in comparison to no-loyal clients, loyal buyers will buy more frequently and switch less to rivals’ products or services because of its price.
According to the Statistics Portal (2019), the number of smartphone users in China is estimated to reach 732.5 million units as shown in Figure 1 below, with the number of smartphone users worldwide forecast to exceed 2 billion users by that time.

Nowadays, the market of smartphone has become a relatively mature industry, however, with an emerging of a large number of smartphone brands, which has intensified the competition in the smartphone industry. According to the International Data Corporation (IDC), Huawei smartphone overall market has declined 1.8% in the second quarter 2018. On the other hands, consumers would like to pay a lower price to buy higher quality smartphone. However, the company aim to constantly increase consumer brand loyalty of smartphone though improving of brand image, increasing customer brand innovativeness. These two factors are significant strategy in long-term development of Huawei. Finally, research objectives aimed to examine the factors that affected brand loyalty for Huawei smartphone in China. The researcher will focus on brand innovativeness and brand knowledge.

**Brand loyalty (Behavioural loyalty and Attitudinal loyalty)**

Brand loyalty can be explained by the situation that consumers are likely to buy a brand again and recommend it to others (Bapat and Thanigan, 2016). Brand loyalty comprises behavioural loyalty and attitudinal loyalty. This study applies brand loyalty concept with Huawei smartphone users only in China. Huawei smartphone brand loyalty is defined as end-Chinese-consumers are likely to buy Huawei again and recommend this brand to others. Behavioral loyalty is defined as the consumer's tendency to repurchase a brand (Sancharan, 2011). Huawei smartphone behavioral loyalty is defined as the end-Chinese-consumer's would like to repurchase Huawei smartphone in the future. Attitudinal loyalty is defined as the consumers' psychological commitment to repurchasing the brand (Sancharan, 2011). The attitudinal loyalty of Huawei smartphone is defined as the psychological commitment of end consumers to repurchase Huawei smartphones.

Brand loyalty is used to explain models of customers repeatedly purchase the same brand or product/service category. Loyalty is considered to be the long-term financial performance of any business company (Reichheld, 1996). Moreover, brand loyalty is an important prerequisite for corporate profitability and competitiveness. It is an important strategy to develop brand loyalty as a competitive advantage, others believe that brand loyalty is the key of corporate marketing activities and integrated marketing (Reichheld and Teal, 2001). Brand loyalty is great significance to the long-term development of the enterprise, which can improve the repurchase towards products, reduce the distribution expenses of the enterprise, and help firm to increase the business turnover and profit margin. This study applied the concept of brand loyalty to measure customers’ attitude and behavior towards Huawei smartphone.

**Brand innovativeness**

Brand innovativeness is the extent to which consumers perceive brands as being able to provide new and useful solutions to their needs (Pappu and Pascale, 2015). In this study, Huawei smartphone innovativeness is defined as the extent to which end-Chinese-consumers believe that Huawei can provide new and useful solutions to their needs towards smartphone.
In the previous studies, brand innovation refers to the extent to which consumers consider brand to be innovative (Barone and Jewell, 2013), which will affect brand evaluation of customers to that particular product. Also, Henard and Dacin, (2010) find that brand innovativeness positively affect their loyalty through perceived quality. Brand innovativeness of Huawei smartphone is mainly reflected in the some specific features of the phone, such as the pixel, memory, Central Processing Unit (CPU), and appearance designated. Therefore, if consumers think that the innovativeness of Huawei smartphone is very high, they are very willing to re-buy it. So that, brand image of the Huawei smartphone will be improved. Finally, the researcher thinks that brand innovativeness is one of the major significant factor of brand loyalty.

H₁ - There is no any significant relationship between brand innovativeness and brand loyalty.

Brand Knowledge (Brand Awareness and Brand Image)

Brand knowledge is defined by descriptive and evaluative brand-related information that it is individualistic inference about a brand stored in consumer memory. Brand awareness and brand image are the two major components of brand knowledge, which are the consumer sides of the brand (Alimen and Cerit, 2010). Brand knowledge is also based on a constant communication with consumers that elicits real comprehension of the product or service (Richards et al., 1998). In this study, the researcher applied brand knowledge to measure perception of customer towards Huawei smartphone, which are the descriptive and evaluation Huawei-related information that it is individualistic inference about Huawei-stored in end-consumer mind. Brand image is a meaning associated to the brand by consumers which provides the brand to accomplish and remain resonant and adequate in consumers’ minds (Alimen and Cerit, 2010). Huawei smartphone image provides the brand to accomplish and remain resonant and adequate in end-consumer minds. Brand awareness shows how consumers associate the brand with the particular product that they aim to own (Alimen and Guldem, 2010). Huawei smartphone awareness is defined as how end-Chinese-consumers associated with Huawei smartphone that those own. Thus, the researcher thinks that brand knowledge is a significant factor to influence brand loyalty.

Keller (1993) suggested that brand knowledge includes brand-related concepts, brand awareness and brand image, such as brand-related attributes, interests, image, thoughts, feelings, attitudes and experiences to a brand, which constitute brand knowledge and directly affect consumers' responses. Therefore, brand knowledge could comprehend both explicit and tacit knowledge. Explicit knowledge is objective and theoretical and can be asserted through many forms of media-documents, audiovisual equipment, computerised records. Implicit knowledge is mostly subjective, practical, and personal (Sharif, 2004). Thus, brand knowledge can increase consumers' understanding and familiarity towards Huawei smartphone and promote consumers' loyalty to Huawei. The researcher thinks brand knowledge is a significant factor to influences brand loyalty.

H₂ - There is no any significant relationship between brand knowledge and brand loyalty.

Conceptual Framework and Research Hypotheses

Figure 1 was contributed to consider the relationships between independent variables: - brand innovativeness and brand knowledge (copes with brand image and brand awareness) care as well as the
dependent variable; brand loyalty of Huawei smartphone. In this study, the brand loyalty can be categorized into behavioral loyalty and attitudinal loyalty.

![Conceptual framework of factors influencing the Huawei Smartphone of brand loyalty](image)

**Figure 1** Conceptual framework of factors influencing the Huawei Smartphone of brand loyalty

**Research Methodology**

The mixed methods of the exploratory sequential designed by Creswell (2009) was applied to describe and measure the effective factors in the brand loyalty of Huawei smartphone. Exploratory sequential design was selected in order to broadly explore and understand data management practices, behaviors, and preferences of brand loyalty of Huawei smartphone. This method begins with prioritizing the collection and analysis of qualitative data. Building the framework from the exploratory results, the quantitative phase is applied to test and generalize the initial findings. The researcher then interprets how the quantitative results build on the initial qualitative results as a consequence.

Furthermore, this study used both primary data, such as interviews and questionnaires as well as secondary data such as journals to design the conceptual framework and variables. This method multiplies details of operational component of each selected variable by randomly selected interviewees, who used Huawei smartphone in the past.

There are two rounds of interview. In each round, the interviewees were selected by homogenous type under the purposive sampling technique. The first round with six people who four students and one employments of private origination, results two major independent variables comprising brand knowledge (Brand awareness and brand image) and brand familiarity and one dependent variable brand evaluation.

The second round with another group of interviewees, who have used Huawei smartphone in the recent past (1-2 years). Interview result shows the strong sign of brand loyalty. In conclusion, based on the total two rounds of interviewing process, validity of research question as well as research objective have been well-designed.

**Sampling procedure:** In the sampling procedure, the researcher develops screening question to filter the prospect respondents to examine. Therefore, the researcher applied $p=40\%$ ($p=0.40$) and $e=10\%$ ($e=0.10$) into the n4Studies calculation. As per the calculation, the result showed the sample size of 93 ($n=93$). However, since there is a limitation of time and budget, the researcher designed to collect the sample size of 136 respondents ($n=136$) via Wenjuanxing (online survey) as an instrument in order to collect the data from target respondents.
Research Instruments/Questionnaires: Online questionnaire was used to gather the data from the respondents. The questionnaire consists of three parts. The first part is the screening question to screen the respondents who used to own the Huawei smartphone in the past year. The second part contains 35 questions which were used to measure each of the variables. The last part is the demographic information. Four questions for brand innovativeness, the brand knowledge was divided into 4 questions for brand image and four questions for brand awareness, as well as brand loyalty which was divided into five questions for behavioral loyalty and four questions for attitudinal loyalty. The research used Four-point Likert scale to rate each variable, (1) Strongly disagree to (4) Strongly agree. The brand loyalty was analyzed by combining brand image and brand awareness value because these are two sub-variables of brand knowledge, as well as the brand loyalty was analyzed by combining behavioral loyalty and attitudinal loyalty value because these two sub-variables are part of brand loyalty.

Reliability: The results of Cronbach's coefficient alpha test of all (sub-)variables were analyzed both in the pre-test period when the number of respondents was 30 (N = 30) as well as ending period when the number of respondents was 136 (N = 136) shown in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of question</th>
<th>Cronbach's Alpha coefficient result</th>
<th>Difference</th>
<th>Difference²</th>
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<tr>
<td></td>
<td>n=30</td>
<td>n=136</td>
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<td></td>
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<td>- Behavioral loyalty</td>
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</tr>
<tr>
<td>- Attitudinal loyalty</td>
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<td>0.705125</td>
<td>0.851208</td>
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</tr>
<tr>
<td>Brand innovativeness</td>
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<td>0.898319</td>
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<td>0.927456</td>
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<td>- Brand image</td>
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<td>0.912312</td>
<td>0.945202</td>
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</table>

Research Results

Descriptive Analysis

The demographic profiles in this study are gender, age, educational level, monthly income and occupation, the respondents totaled 136 respondents (n=136). The whole respondents were Chinese and male is 51% (69 respondents) and female is 49% (67 respondents) in the age range of 18-29 years old (71%) who hold a bachelor Degree were the majority with 66% (90 respondents). The results showed that the main respondents is employee of private organization with the 29% (40 respondent) and the groups of income level respondents who are 20,000 - 30,000 Baht were the majority with 32% (43 respondents).

Multiple Linear Regression (MLR) Analysis

As a result of backward elimination, there are three variables remained significant towards brand loyalty (Table 3). If the brand innovativeness for 1% plateau will affect brand loyalty of Huawei smartphone 67% (β1
The brand knowledge for 1% plateau will affect brand loyalty of Huawei smartphone 13% ($\beta_2 = 0.13268$). As a result, brand innovativeness has a greater impact on brand loyalty of Huawei smartphone than brand knowledge in the magnitude of 47% of the total possibility. The formula is shown as follows:

$$\hat{Y} = 0.43733 + 0.67672 X_1 + 0.13268 X_2$$

where $\hat{Y} =$ Brand Loyalty; $X_1 =$ Brand Innovativeness; $X_2 =$ Brand Knowledge.

**Multicollinearity Analysis**

There are two multicollinearity indicators comprising in eigenvalue, variance inflation (VIF), and tolerance. Eigenvalue of 2.96961 which is more than zero indicate no multicollinearity problem. VIF of indicates that variance inflation factor at lower than 5 while Tolerance is higher than 0.2. VIF and tolerances confirms that these two independent variables have no multicollinearity problem.

**Discussions and Implications**

The main aim of this study was to investigate the relationship between brand innovativeness, brand knowledge and brand loyalty. Across using data from actual end-Chinese-consumer samples, this study proposes the relationships amongst brand innovativeness, brand knowledge, and brand loyalty. Specifically, brand innovativeness has a greater impact on brand loyalty of Huawei smartphone than brand knowledge. The result indicate that there is a strongly positive relationship between brand innovativeness and brand loyalty. The brand innovativeness is significant part of firm intangible assets, firms can increase consumer brand loyalty since brand innovativeness enhance customer experience. Moreover, Pappu and Quester (1997)'s study suggest that innovativeness may be a more valuable brand attribute, influencing consumer perceptions of quality directly and brand loyalty indirectly, thereby encouraging sales of existing products from the brand in other categories, as well as sales of brand extensions and future products. Also, brand innovation can improve loyalty towards special brand by enhancing perceptions of the brand quality, and the positive perception of brand quality can be transformed into loyalty to the brand. Therefore, Brand managers should be encouraged to focus on product innovations to achieve improvements in brand equity (Sriram et al., 2007) and invest more funds to promote their brand innovativeness, which can enhance perception of products and establish a good brand reputation, and ultimately increasing consumer brand loyalty. Moreover, Brand loyal consumers provide the basis for a stable and growing market share of a company (Tabaku and Zerellari, 2015).

Otherwise, The result of this research show that there is no significant relationships between brand knowledge and brand loyalty. However, the brand knowledge can influence consumers' brand loyalty through increasing consumer' evaluation of the brand, Alimen and Cerit (2010), has proved that brand knowledge is a key to evaluate brand value in empirical studies.

**Conclusions**

The study intends to explore the factors affecting brand loyalty from a target of 136 respondents who have used Huawei smartphone before; 100% of the questionnaires were distributed via Wenjuanxing (online
survey) in China. The researcher developed this study form August to October 2018. This study focused on two independent variables, which is brand knowledge (comprising brand image, brand awareness) brand innovativeness. An dependent variable is brand loyalty (comprising behavioral loyalty and attitudinal loyalty). The research objectives were examined using MLR via SAS Enterprise license 12400609. The first hypothesis have confirmed the effects between the paired variables (see Figure 1). However, the second hypothesis has no significant relationships between brand knowledge and brand loyalty. Finally, brand innovativeness is the most important variable to create the effect on brand loyalty.

Recommendations
The findings hold the usefulness of the Huawei smartphone in China. A few recommendation has provided. Firstly, an important managerial implication of our research is that by developing innovativeness, Huawei smartphone enhance the consumer-brand equity. Brand managers have been encouraged to focus on product innovations to achieve improvements in brand loyalty (Sriram et al., 2007). Secondly, this research also sheds light on how to strategically promote innovative brands. Based on the results of our study, marketers are encouraged to promote innovativeness and quality of the brand simultaneously. Specifically, managers should focus on developing and reinforcing "innovativeness-quality associations (Pappu and Quester, 2016). Finally, the researcher provide a rationale for managers to invest more in promoting innovativeness. If firms that promote the innovativeness of their brands can convince customers of the perceived quality of their brands, this could translate into brand loyalty.

References

