MODELING OF BRAND LOYALTY OF FAST MOVING CONSUMER GOODS WITH SPECIAL REFERENCE TO TOOTH-PASTE CATEGORY

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Abstract

Marketing strategies for brands have changed their emphasis to relationships and value development that directly links to brand loyalty is the main focus of this paper and two primary factors are examined to analyze relative relationships within the FMCG sector: brand experience and brand engagement. To have a relation to brand loyalty, these variables have already been identified. It is still quite uncertain; however, as brand engagement consists of both affective and ongoing engagement, which of these aspects of engagement has the greater or most relevant effect on brand loyalty. In addition, the current research and literature on the structure of brand experience is comprehensive. It is not entirely clear, however, regarding the relationship of this construct to brand loyalty. Although some authors say that it directly influences brand loyalty, others have discovered that it is a dependent variable that alone has no immediate impact on brand loyalty. This study also explores the connexion between brand experience and brand loyalty as far as the FMCG industry is concerned, both as a mediator with and without commitment. As a consequence, consistency commitment has not been shown to have any major effect on the loyalty of the customer to a brand, it is believed that variables such as price and other possible alternatives do not affect this desire to preserve the relationship.

Keywords: brand loyalty, brand experience, brand commitment, branding.

Introduction

Brand loyalty has been described as a behavioural response and a psychological process feature (Dilip, Rupam & Anupawa, 2009), which means that both actions and attitudes are a feature of brand loyalty. Tepeci (1999) is of the opinion brand loyalty is a measure of the devotion of a customer to a brand. This shows how likely a customer will turn to another brand, especially when a change is made by that brand, either in price or in product features.

Brand Switching is the decision of the customer to buy a brand's product other than that previously or normally purchased. Consumers of goods moving from one brand to another may have many reasons to be responsible. According to Umeshanand (2008), the following explanations are said to be the underlying factors responsible for brand change: inconsistent product and market placement of the market; low analysis and growth that does not provide improvisation of product quality and standards; If product quality starts to decline, customers find it uncomfortable; No product brand availability and version of what consumers require; individuality and diversity in other products; price instability or affordable price accessibility in other
products; kleptomaniac consumers who do not respect brand loyalty, but have every form of product and usefulness after consumption and taste. Therefore, in the light of this, the study explores the various factors that lead customers to brand loyalty, defines customers ' brand satisfaction with favorite toothpaste and, in the long run, the potential market shares of toothpaste.

**The Analysis Issue Statement**

It is a challenging task to anticipate variables that influence brand loyalty and it represents a crucial step in understanding the preference of customers. Therefore, In spite of this, researchers are preparing to answer the following questions:

1. To most of what extent is brand loyalty linked to perceived consistency, brand cost, faith in the brand and brand name?
2. To what degree can Markov chains be used to classify the steady-state probabilities for both the products and brands?
3. In terms of the needs and improvements of consumers using the Markov chains, will the future market values of the products be estimated in the immediate future?

**Objectives of the Study**

The objectives of this study are to:

1. To examine the level of relative consistency, brand price, relationship between, brand name become correlated with toothpaste brand loyalty,
2. It is possible to examine the degree upon which Markov chains will be used to assess the steady-state chances for toothpaste brands.
3. To determine whether the future market share of the products in line with the needs and improvements of consumers with using Markov chains are expected throughout the longer run?

**Research Hypothesis**

H1: Perceived quality, brand cost, trusts in the brand image and brand name are correlated with brand loyalty.

H2: For the brands of toothpaste, there seems to be no relationship among the Markov chains and the steady-state probabilities.

H3: In terms of customer demands and shifts using the Markov chains, the future market shares of toothpaste brands are not related.

**Literature Review**

A multidimensional model using a chaining mechanism and a moderating variable is offered by Musa (2005). Musa (2005:46) shows that his cosmetics and healthcare market research findings attribute brand loyalty to the following:

- Efficiency; Satisfaction with the subsystem and general satisfaction;
- Worth Perceived;
- Attitudinal allegiance;
- Conductual allegiance; and
- Faith

Loyalty to the brand seems to be a very key element, more than ever in fast-moving consumer products (FMCGs) such as toothpastes, for marketers and consumer researchers. Toothpaste is a helpful product that helps people cleans their teeth; it prevents teeth from decaying and whitening and ensures proper breathing.
and trust while speaking. Brand loyalty to the use of toothpastes has several variables, such as price, consistency, brand competence, brand identity, product engagement, and confidence and of course availability of the product, etc.

A traditional multidimensional framework exploring both mentality and behavioural loyalty is Maritz(2007), the Maritz Multidimensional Loyalty Model, developed in 2007 after a decade of study.

The model explores the results of the components of attitudinal brand loyalty:

- Factors from the marketplace;
- Human psychographic variations;
- User experience;
- Picture of the brand; and
- Brand equity.

In this study, four factor were identified and analyzed that could potentially affect loyalty to the use of toothpastes. The first is the presumed authenticity of the brand. The quality of products comes with features and attributes of a product or service that depend on its ability to fulfill defined or inferred specifications. The considerations emphasized above are listed below.

**Brand Trust**

In several studies, brand trust is regarded as essential (Doney & Cannon, 1997; Moorman et al., 1992). It is interpreted as a notable factor in the success of the company (Morgan & Hunt, 1994). Brand trust is described by Chaudhuri and Holbrook (2001) as 'the willingness of the average customer to depend on the brand's ability to perform its specified purpose.' Brand trust emerges after the assessment of companies' products by customers.

The key difference between brand trust and brand impact is; brand trust is seen as a long process that can occur through thinking and analysis of store customer interactions whereas brand impact consists of impulsive feelings that can randomly be generated (Chaudhuri & Holbrook, 2001). As a cognitive aspect, brand confidence can therefore be addressed (Casalo et al., 2007), which can cause emotional reaction, i.e. brand effect.

**Brand Price**

Price is one of the important variables that plays a crucial role in brand switching, according to Kotler & Armstrong (2010). Price is the cost charged for any product or service by the customer when buying the product/service. If organizations charge reasonable prices and offer better services, customer loyalty will be created and very few consumers will turn to another brand because price fairness is an extremely important issue that leads to satisfaction.

**Brand Name**

When customers associate it with a collection of tangible or intangible advantages they receive from the product or service, a name becomes a brand. A brand name consists of words, letters, and numbers such as Close-Up, Colgate, Pepsodent Colgate, Dabur herbal, etc. that can be vocalised. Most brands of toothpaste are made with a strong reputation (with benefit compared to the product of competitors). In addition to purchasing massive assets such as manufacturing equipment, the company is also gaining a good capital brand name (Holland & Baker, 2001). Brand name meaning, in turn, goes beyond physical property and is more than tangible property. Thus, we can say that purchasing a business will bring in the reputation (and other positive brand name associations) accrued overtime among market customers at the same time.

**Methodology**

Data sources are primary and secondary, in the form of questionnaires, personal interviews, direct observations, textbooks, journals, conference articles, magazines, as well as Internet materials. The target research population is the academic staff of the University of Benin (excluding the Institute). In order to
obtain a representative sample of the population under concern analysis, a sample size of three hundred respondents (using a stratified random sampling technique) was chosen for the study.

A survey questionnaire divided into two parts called A-B was the instrument used for the analysis. Section A requested history data from the respondents. Information on brand loyalty and insistence was sought by Section B. For reliability and a correlation coefficient, the questionnaire was checked.

By way of Product Moment Correlation Statistics, 0.81 was collected. They were administered to University of Benin lecturers who buy several toothpaste brands that easily transfer consumer products from supermarket chain stores. Using SPSS 16, the data obtained was analyzed. To check the relation between variables, correlations and multiple regression coefficients were calculated. The following regression equation is fitted to estimate the influence of various factors that influence brand loyalty among toothpaste brands consumers in University of Benin;

Regression Equation: \[ Y = a + bX_1 + cX_2 + dX_3 + eX_4 + u \]

Where \( X_1 = \text{Perceived Quality}, X_2 = \text{Price}, X_3 = \text{Brand Trust}, X_4 = \text{Brand Name} \) and \( u = \text{error term} \) and \( b > 0, c < 0 \) or \( c > 0, d > 0, e > 0 \)

### Data Analysis and Presentation

The result of correlation analysis illustrates that value of perceived quality 0.589 which shows that perceived quality has a positive relationship with brand loyalty. It means that when customers perceived quality from a brand, it made them to be loyal to the brand. The result of correlation analysis shows that value of price is 0.066 which shows that price has a positive relationship. It means that even when brand price is increased customers are still loyal to the brand and this could be as a result of customers' perception toward the brand. The result of correlation analysis illustrates that value of trust is 0.534 which shows that trust has positive relationship with brand loyalty. It means that the higher the trust the higher will be the brand loyalty and lesser the trust the higher will be the brand switching which gives positive relationship between the independent variable, trust and the dependent variable, brand loyalty. The result of correlation analysis illustrates that value of brand name is 0.501 which shows that brand name has a positive relationship with brand loyalty.

<table>
<thead>
<tr>
<th></th>
<th>Brand Loyalty</th>
<th>Perceived Quality</th>
<th>Price</th>
<th>Trust</th>
<th>Brand Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Loyalty</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>0.589**</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Price</td>
<td>0.066**</td>
<td>0.346**</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trust</td>
<td>0.534**</td>
<td>0.571**</td>
<td>0.462**</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Brand Name</td>
<td>0.501**</td>
<td>0.479**</td>
<td>0.316**</td>
<td>0.481**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed)
Table 2: Coefficients Unstandardized and Standardized Coefficients

<table>
<thead>
<tr>
<th>Mode</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.180</td>
<td>0.445</td>
<td></td>
<td>2.64</td>
<td>0.008</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>0.376</td>
<td>0.135</td>
<td>0.251</td>
<td>2.78</td>
<td>0.007</td>
</tr>
<tr>
<td>Price</td>
<td>0.067</td>
<td>0.072</td>
<td>0.076</td>
<td>.924</td>
<td>0.360</td>
</tr>
<tr>
<td>Trust</td>
<td>0.374</td>
<td>0.081</td>
<td>0.415</td>
<td>4.68</td>
<td>0.000</td>
</tr>
<tr>
<td>Brand Name</td>
<td>0.485</td>
<td>0.183</td>
<td>0.200</td>
<td>2.62</td>
<td>0.009</td>
</tr>
</tbody>
</table>

Dependent Variable: Brand loyalty

**Regression Equation**

Here, dependent variable is brand loyalty and the independent variables are price, perceived quality, trust and brand name. Regression equation for this study is given below:

\[
\text{Brand loyalty} = 1.180 + 0.376(\text{Perceived quality}) + 0.067(\text{Price}) + 0.374(\text{Trust}) + (0.485)(\text{Brand loyalty})
\]

From the regression equation it is clear that if 1 unit of perceived quality increases, which the independent variable in this study is, there will be a 0.375 unit increase in brand loyalty. As the other variable is price so shown in the table that if there is 1 unit increase in price then 0.066 unit increases will occur in brand loyalty. Simultaneously, the four independent variables are positively correlated.

H1: Perceived quality, price, trust and brand name are negatively associated with Brand loyalty.

Table 2 shows the value of perceived quality, price, trust and brand name to be 0.375, 0.066, 0.373, 0.486 respectively. This shows positive relationship between the perceived quality, price, trust and brand name with brand loyalty. So this hypothesis has been rejected.

Table 3: Model Summary

<table>
<thead>
<tr>
<th>P</th>
<th>P Square</th>
<th>Adjusted P Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.667a</td>
<td>0.547</td>
<td>0.460</td>
<td>0.637</td>
</tr>
</tbody>
</table>

The model summary tells us how much our model is fit. The model summary gives the value of P which stands for the correlation of the variables. The value of P is 0.667 so it shows the positive relationship between the dependent variable, brand loyalty and the independent variables, perceived quality, price, trust and brand name.

The value of P Square shows that the variability in the dependent variable, brand switching is explained 54.7% by the variability in the independent variables, perceived quality, price, trust and brand name. It shows that the linear combination of independent variables in the regression analysis predicts total variance of dependent variable by 54.7% and 45.1% are the other unexplained factors, not included in the model but whose influence is relevant and cause customers to be loyal to a brand.
Table 4: Brand Preference

<table>
<thead>
<tr>
<th>Toothpaste Brands</th>
<th>No. of Consumers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close Up Only</td>
<td>156</td>
<td>26</td>
</tr>
<tr>
<td>Colgate Only</td>
<td>57</td>
<td>9.5</td>
</tr>
<tr>
<td>Dabur Herbal Only</td>
<td>87</td>
<td>14.5</td>
</tr>
<tr>
<td>Close Up to Colgate</td>
<td>82</td>
<td>13.67</td>
</tr>
<tr>
<td>Close Up to Dabur Herbal</td>
<td>72</td>
<td>12</td>
</tr>
<tr>
<td>Colgate to Close Up</td>
<td>38</td>
<td>6.33</td>
</tr>
<tr>
<td>Colgate to Dabur Herbal</td>
<td>27</td>
<td>4.5</td>
</tr>
<tr>
<td>Dabur Herbal to Close Up</td>
<td>57</td>
<td>9.5</td>
</tr>
<tr>
<td>Dabur Herbal to Colgate</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>600</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: From Field Survey (2013)

From Table 4, 26% of the respondents were of the opinion that they would not go for any other toothpaste apart from Close Up, 9.5% of the consumers were of the view that they would only go for Colgate toothpaste and those that insisted that they would stick to Dabur herbal toothpaste were 14.5% of the consumers.

Table 5: Brand Insistence and Switching Rates

<table>
<thead>
<tr>
<th>Brand</th>
<th>No. of Consumers</th>
<th>Percentage</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close-Up (C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Insistence</td>
<td>156</td>
<td>50.32</td>
<td>0.5032</td>
</tr>
<tr>
<td>Switching to Colgate</td>
<td>82</td>
<td>26.45</td>
<td>0.2645</td>
</tr>
<tr>
<td>Switching to Dabur Herbal</td>
<td>72</td>
<td>23.23</td>
<td>0.2323</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>310</strong></td>
<td><strong>100.00</strong></td>
<td><strong>1.0000</strong></td>
</tr>
<tr>
<td>Colgate (M)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Insistence</td>
<td>57</td>
<td>46.72</td>
<td>0.4672</td>
</tr>
<tr>
<td>Switching to Close-Up</td>
<td>38</td>
<td>31.15</td>
<td>0.3115</td>
</tr>
<tr>
<td>Switching to Dabur Herbal</td>
<td>27</td>
<td>22.13</td>
<td>0.22</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>122</strong></td>
<td><strong>100.00</strong></td>
<td><strong>1.0000</strong></td>
</tr>
<tr>
<td>Dabur Herbal (DH)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Insistence</td>
<td>87</td>
<td>51.79</td>
<td>0.5179</td>
</tr>
<tr>
<td>Switching to Close-Up</td>
<td>57</td>
<td>33.93</td>
<td>0.3393</td>
</tr>
</tbody>
</table>
Switching to Colgate  |  24  |  14.28  |  0.1428  
Sub Total  |  168  |  100.00  |  1,000  

Source: From Field Survey (2013)

From table 5, the total demands for Close-Up, Colgate and Dabur herbal are 310, 122 and 168 respectively. Out of these, only 156, 57 and 87 insisted on using Close-Up, Colgate and Dabur herbal respectively. Those that would switch from Close-Up to Colgate and Dabur herbal are 26.45\% and 23.23\% respectively. Those that would switch from Colgate to Close-Up and Dabur herbal are 31.15\% and 22.13\% respectively. The number of consumers switching from Dabur herbal to Close-Up and Colgate are 33.93\% and 14.28\% respectively.

Findings, Recommendations and Conclusion

It is possible to research consumers in a marketplace in order to determine their attitude to brands and their likelihood to switch from a brand they are using at the moment to any other brand that they might prefer to switch, which allows the building of a picture of likely brand switching behavior.

Empirical Findings

The following empirical findings were made:

1. The dependent variable, brand loyalty and independent variables, relative consistency, price, confidence, and brand name have a stronger relation. There is high degree of determination of the steady state probabilities for the toothpaste brands using Markov chains.
2. Consumers of the toothpaste brands keeping to their switch brand decisions, the transition matrix of the Markovian chains forecasted the future demand for Close-Up, Colgate and Darbur herbal. However, the number of consumers for the brands of Colgate and Darbur Herbal toothpaste would increase and there would be a decrease in number of demands for Close-Up toothpaste in the long run.

Recommendations

1. Marketing agents should emphasize enhancing the quality of their goods and uphold their advertising commitments so that, due to disappointment, their current customers do not turn to any other goods.
2. Marketing strategists should also emphasize on building a good brand image or name for their products or services.
3. Organizations should always strive to ensure that their customers are very satisfied.

Conclusion

If consumer propensity to switch is known, it leads to mocking up hypothetical market which may indicate its future market share. This brand switching analysis is one of the useful tools to forecast the brand dynamic evolution. We have used transition matrix of the Markovian Chain as a forecasting tool that could be used in the future to assess the business climate. This would in no small way assist marketing managers to compare the intensiveness gained in a particular period of time with product life cycle and also allow them to measure the effect of structural changes such as quality and price cuts. Customer loyalty and retention is potentially one of the most powerful weapons that organizations.
References


