A Study of Psychological and Behavioural Correlates of Brand Loyalty

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ABSTRACT
The study aimed at understanding psychological and behavioral variables having their effect on brand loyalty particularly in terms of food & grocery private label brand in Indian market. A number of psychological variables and behavioral variables were taken up from an established scale developed by Prof Scot Burton, University of Arkansas, available in public domain for the study. It was found that the psychological variables and behavioral variables both have impact on loyalty towards private label brands. It shows consumer thought process maturing towards private brand.

KEY WORDS
Brand Loyalty, Variables affecting Brand Loyalty, Logistic Regression.

Introduction
Private labels / store brands / retailers’ brands are emerging phenomena in Indian market. Although it is an establish fact in US and European market. All international retailers on world platform are having their own brands which somewhere are called private label brands, somewhere store brands, and somewhere retail brands. Some international retailers’ private brands are selling at higher prices than the national brands. With the emergence of organized retail in India, the ground for the launch of private brands became ready. All established retailers have identified this opportunity and have come up with their own brands. With India’s retail industry maturing over the years, the market for private labels will also mature. If one looks at the beginning of launch of private labels by leading retailers on world platform, even they also had rough start but with the passage of time market matured and retailers became serious with their own babies. Result is upfront.

Literature on Indian private labels is scant. But trend is setting. Retailers are becoming serious and so the researchers have started assessing how and how long this phenomenon will go. This study also attempts to be a cog in the wheel of such researches.

Motivation to take up the research
Emergence of organized retail is a recent phenomenon in India and hence the emergence of private label brands is an even newer phenomenon in Indian market. This fact calls for this kind of study to understand variable affecting and determining private label consumption in India. Therefore, the importance of this study from practitioners’ perspective cannot be overemphasized.

The extensive study of literature on private label brands discloses a wide gap which needs to be filled up through such researches. Since, the phenomenon is itself new, the research literature pertaining to Indian market is scant. This calls for academicians to explore and describe every nitty-gritty of private label consumption in India.

Literature Review
Brands which are sold in the name of retailers’ own brand name instead of regional, national or multinational brand-names are called private label brands (cf. Boone and Kurtz 1995; Kotler and Armstrong 1996). In USA, private label brands or store brands constitute about one-fifth of the total sales in terms of total units sold (Heller 1997; Liebeck 1996). In
supermarket sales they are about 50% of total sales (Wellman 1997). A private label sale is increasing at consistent rate in USA (DeNitto 1993a).

Value Line magazine opined that concerns of other brands as: Private Label brands posed big threat to other brands in terms of their slow pace of growth witnessed in food and grocery industry (Seligman 1995: 1461). Interest of large discount retailers and looking at the current level of performance, it can be forecasted that private brands will grow leaps and bounds in US market (Kahn and McAlister 1997; Ortega and Stern 1993).

In Chinese market private label brands are in nascent stage so the extant literature in China still does not provide clear direction for such brands for the future. There is very high positive correlation between store image and perceived quality of store brands Jiang (2003).

The findings of western researches cannot be applied per se in Indian market as there is huge difference between Indian and western consumption habits. This has been basic reason for taking up this study. India specific researches will certainly offer valuable insights to the Indian retailers and national brand marketers to devise their strategies for future. It is worthwhile to mention here that review of erstwhile researches irrespective of the market help the Indian researchers in understanding the constructs of research.

In a study conducted by Myers (1967), it was evident that the middle class housewives were more inclined to buy private brands as compared to working women. It was also found that the personality traits of such buyers were warm-hearted, sensitive and obedient. In another study conducted by Burger, and Schott, B (1972), it was reconfirmed that both consumer group were significantly different from each other.

In comparison to collectivist cultural value orientations, individualistic value orientations were better cause for private brand consumption Tifferent and Herstein (2010). (McGoldrick 2002) found that it is not plausible to distinguish private brand buyers on the basis of culture due to the fact that consumptions is also determined by psychological and behavioral factors. Many more researchers have found that variables like impulsiveness, risk perception, brand loyalty, attitude etc. play a determining role in private label brands consumption (Bettman 1974; Burton et al. 1998, Byoungho & Yong 2005; Garretson, Fisher & Burton 2002; Gunn & Chen 2009).

Another study conducted by Glynn and Chen (2009) explored the factors causing the private brand purchase and found that quality, price, price-quality inferences and loyalty to some brand either private labels or national brand affected their decision to buy store brands. Narsimhan and Wilcox (1998) found that the risk perception in private brave consumption is often high. Similar finding was of Dunn et al., 1986; and Narsimhan and Wilcox, 1998) that the consumers do not want to indulge in the after effect of taking risk of private brand consumption.

Search and experience attributes in creating risk perception were studied by Batra and Sinha (2000). Nelson (1974) explored experience in terms of hedonic attributes and search is related to the evaluation of private brands before the purchase takes place. The product categories in which hedonism is dominant, perceived risk gets reduced due to high brand equity in such products (Erdem and Swait, 1998).

Batra and Sinha 2000; Burger and Schott 1972; Burton et al. 1998 has found that price is the most important determinant of private brand consumption. Batra & Sinha studied about the price sensitivity in terms of private consumption. Deveny 1993; Kirk 1992 found that there are multiple attributes which affect the private label consumption. In a survey asking consumers why they buy store brands rather than national brands, 67% rated low price as “Very Important” (Kirk 1992). Raju, Sethuraman and Dhar 1995 have researched that private labels are more consumed in the product categories in which consumers are price conscious.

Hoch and Banerji 1993 found that there is negative correlation between consumers income and private label consumption and quality in food and grocery category is important factor in private label consumption. Price-quality inferences play important role in private brand consumption. Lichtenstein and Burton 1989, Peterson and Wilson 1985 have also talked about price-quality inferences being important in private label consumption. Similar inferences have been drawn by Wolinsky (1987). (Kotler 1991; Montgomery and Wernerfelt 1992) have concluded that there is more variability in quality of private labels in comparison to national brands. Peterson and Wilson (1985) have found that perception of risk in private brands consumption is an important variable.

DeNitto (1993b) reached to the conclusion that increase in the market share of private brands can be attributed to increase in quality of the private brands (cf. “Battle of Brands” 1993, DeNitto 1993 b). Lichtenstein, Netemeyer and Burton 1990; Thaler 1985; Zeithaml 1988) established that value consciousness is a significant variable. Newspaper articles advocate that price and comersurate quality is important determinant(e.g. Deveny 1993; Litesse 1993).

(Thaler 1985) found that consumer surplus in terms of comparison between actual price and reference price are important factor for store brand consumption. Similar findings have been of Dickson and Sawyer (1990).

It has also been found that consumers sometimes find consumer surplus in private brand purchases which gives them feeling of smart shopper self-perception which is said to be different from impulsiveness (“Battle of Brands” 1993; Blattberg and Neslin 1990). It is
established that a section of private label buyers perceives themselves as smart shopper (Walker 1991).

It is also found in the extant literature that sales promotions are important in private labels but degree and intensity of different types of promotional schemes have different effect (Blattberg and Neslin 1990; Shimp 1990). To counter the low price strategy of private brands, national brand prefer to go for price related promotions only (Stremersch 2013). It has also been found that in different product categories, national brand have different strategies to counter private brands (Hoch and Banerji 1993; Sethuraman and Mittelstaedt 1992).

Lichtenstein, Ridgway and Netemeyer (1993) have studied price related constructs like price consciousness, value consciousness and price-quality perception and deal proneness. Martin, Ween and Beatty (1994) scale measures impulsiveness on the part of consumers. Gabor and Granger (1979; Babakus et al. 1985) studies price consciousness and deal proneness. It is also established that frequent promotional activities by private brand adversely affect the national brands.

One study propounded that there is adverse relationship between private label attitude and impulsiveness. It is also found that the consumers who have positive attitude towards private labels feel as smart shopper on its purchase. Consequently such consumers will purchase private brands even if such products are displayed anywhere in the store. Keeping this factor in mind end of aisle display also becomes a factor for the study of sales of private brands.

Items for measuring brand loyalty, the works of Jacoby and Chestnut (1978); Raju (1980), Lichtenstein et. al (1990) are appropriate in the present context.

**Theory of Logistic Regression**

In simple linear regression, the outcome variable \( Y \) is predicted from the equation of a straight line:

\[
Y_i = b_0 + b_1 X_1 + \varepsilon_i
\]

Here \( Y_i \) stands for categorical dependent variable on nominal scale. There may be one predictor \( (X_1) \) or multiple predictors \( (X_1, X_2, \ldots, X_n) \) which are continuous variables on interval or ratio scales. \( \varepsilon_i \) stands for error terms in the model

\[
Y_i = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_n X_n + \varepsilon_i
\]

Logit Model would be:

\[
\text{Logit} = \text{Log} \left[ \frac{ \text{Prob}(Y \text{ happening})}{\text{Prob}(Y \text{ not happening})} \right] = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_n X_n + \varepsilon_i
\]

**Mathematical Model**

In this research paper, the regression equation will look something like:

\[
\text{Brand Loyalty} = b_0 + b_1 x \ (\text{Private Label Attitude}) + b_2 x \ (\text{Deal Proneness}) + b_3 x \ (\text{Price Quality Inference}) + b_4 x \ (\text{Smart Shopper Self-Perception}) + b_5 x \ (\text{Value Consciousness}) + b_6 x \ (\text{Coupon Proneness}) + b_7 x \ (\text{Sale Proneness}) + b_8 x \ (\text{Rupeee-off Proneness}) + b_9 x \ (\text{One-Off Proneness}) + b_{10} x \ (\text{Free Gift Proneness}) + b_{11} x \ (\text{Display Proneness}) + b_{12} x \ (\text{Rebate Proneness}) + b_{13} x \ (\text{Contest Proneness}) + b_{14} x \ (\text{Risk Averseness}) + b_{15} x \ (\text{Impulsiveness}) + b_{16} x \ (\text{Price Consciousness}) + b_{17} x \ (\text{Internal Reference Price Reliance})
\]

Logit of Brand Loyalty = \log [\text{Prob( Loyal / Prob ( Non-loyal))}] = b_0 + b_1 x \ (\text{Private Label Attitude}) + b_2 x \ (\text{Deal Proneness}) + b_3 x \ (\text{Price Quality Inference}) + b_4 x \ (\text{Smart Shopper Self-Perception}) + b_5 x \ (\text{Value Consciousness}) + b_6 x \ (\text{Coupon Proneness}) + b_7 x \ (\text{Sale Proneness}) + b_8 x \ (\text{Rupeee-off Proneness}) + b_9 x \ (\text{One-Off Proneness}) + b_{10} x \ (\text{Free Gift Proneness}) + b_{11} x \ (\text{Display Proneness}) + b_{12} x \ (\text{Rebate Proneness}) + b_{13} x \ (\text{Contest Proneness}) + b_{14} x \ (\text{Risk Averseness}) + b_{15} x \ (\text{Impulsiveness}) + b_{16} x \ (\text{Price Consciousness}) + b_{17} x \ (\text{Internal Reference Price Reliance})

**Research Methodology**

The approach of research is Descriptive in nature. Primary data was used to describe logit phenomenon in private label brand loyalty. Data collection was done with the help of an established private label scale consisting of various psychological and behavioral variables given in the logit model above. Multi-Item Measures from: “A Scale for Measuring Attitude Toward Private Label Products and an Examination of Its Psychological and Behavioral Correlates,” Journal of the Academy of Marketing Science, 26 (Fall, 1998), 293-306 (with Donnie Lichtenstein, Rick Netemeyer, and Judith Garretson). The permission to use the scale was sought and granted by esteemed first author Dr Scot Burton (email dated 12th October, 2012)

All items are 7 point scales with endpoints of Strongly Disagree and Strongly Agree. A few of the items need to be reverse coded; the word “not” in the item generally makes these items easy to spot.

Data was collected using mall intercept technique from the private label users of five major private label retailers in Indian market (Food Bazaar, Reliance Fresh, More, Spencers and Easyday). The customer who enthusiastically admitted of using the private label brand, hence, only they were selected as the sample member. Therefore, it is worthwhile to mention here that the sampling method was purely random.

Data was collected from 550 respondents. The respondents were of all the socio-economic strata in National Capital Region-Delhi. Data was analyzed using SPSS software.

Objectives of Research

The research aimed to dig out following objectives:

1. To understand the phenomenon of private label brand consumption in Indian market.
2. To understand the various psychological and behavioral constructs pertaining to private label consumption in Indian market.
3. To know how psychological and behavioral constructs interact with one another.
4. To know how the psychological and behavioral constructs regress to make brand loyal or non-loyal consumers in Indian market.

Hypotheses of the Study

The study aimed at testing the following hypotheses:

H1: Psychological and behavioral constructs as a whole have similar contribution to private label brand loyalty.
H2: Each psychological construct equally contributes to the private label brand loyalty.
H3: Each behavioral construct equally contributes to the private label brand loyalty.
H4: Private label brand loyalty in India market is in nascent stage so far.

Reliability & Validity

The scale used here in the research is a well established scale developed by Prof Scot Burton of University of Arkansas, USA with Donnie Lichtenstein, Rick Netemeyer, and Judith Garretson and published in *Journal of the Academy of Marketing Science*, 26 (Fall, 1998), 293-306 titled "A Scale for Measuring Attitude Toward Private Label Products and an Examination of Its Psychological and Behavioral Correlates".

Therefore reliability and validity of the scale is taken here for granted. However, it is suggested here to the future researchers to test the reliability and validity once again particularly in a diverse and different market like India.

Data Analysis

Table 1: Model Summary

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
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<tr>
<td>1</td>
<td>509.271(a)</td>
<td>.311</td>
<td>.418</td>
</tr>
</tbody>
</table>

a Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 2: Hosmer and Lemeshow Test

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
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<th>Sig.</th>
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<td>1</td>
<td>11.022</td>
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<td>.200</td>
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Table 3: Variables in the Equation

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<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I. for EXP(B)</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper</td>
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<td>Attitude</td>
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<td>.135</td>
<td>.154</td>
<td>1</td>
<td>.694</td>
<td>.948</td>
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<tr>
<td>Realproneness</td>
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<td>.161</td>
<td>9.221</td>
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<td>.146</td>
<td>.535</td>
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<td>.464</td>
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<td>Martshopper</td>
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<td>.147</td>
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<td>9.147</td>
<td>1</td>
<td>.002</td>
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</table>


Discussion of Analysis

From Table 1, it is clear that the Loglikelihood Ratio is 509.271, which is higher indicating that the model is not very promising. The reason behind this is the private label brands in Indian market are just emerging. People may have just tried the brand but not accepted as an alternative to the national brands. As the market matures the model would be more promising having Loglikelihood Ratio much lower than the present. Similar is the story being told by Cox & Snell R Square and Nagelkerke R Square; higher are these values, better is the model.

From Table 2, Hosmer & Lemeshow’s statistic tests the hypothesis that the observed data are significantly different from the predicted values from the model. So, in effect a non-significant value of this test is required because this indicates that the model does not differ significantly from the observed data. Here there is a non-significant value which indicates the model is predicting the real world fairly well.

From Table 3, it is evident that only a few variables (predictors) are contributing to the private label brand...
loyalty and the variables (predictors) are; Deal Proneness (p < .05), Smart Shopper Self-Perception (p < .05), Value Consciousness (p < .05), Sales Proneness (p < .05), Contest Proneness (p < .05). Rest of the variables (predictors appear to be insignificant for the private brand loyalty. The reason again can be attached is that the private label brand are in nascent stage in Indian market. The same is the story depicted by the values of exp (b) in the Table 3.

From Table 3 the values of regression coefficients for all the predictors can be picked up and the Logit Model will look like as following:

\[
\begin{align*}
\text{Brand Loyalty} &= 0.335 + (0.053) \times (\text{Private Label Attitude}) + 0.489 \times (\text{Deal Proneness}) + (0.107) \times (\text{Price Quality Inference}) + 0.311 \times (\text{Smart Shopper Self-Perception}) + 0.478 \times (\text{Value Consciousness}) + (0.068) \times (\text{Coupon Proneness}) + 0.307 \times (\text{Sale Proneness}) + (1.100) \times (\text{Rupee-off Proneness}) + 0.110 \times (\text{One-Off Proneness}) + 0.019 \times (\text{Free Gift Proneness}) + 0.198 \times (\text{Display Proneness}) + 0.269 \times (\text{Rebate Proneness}) + 0.339 \times (\text{Contest Proneness}) + 0.085 \times (\text{Risk Averseness}) + (0.073) \times (\text{Impulsiveness}) + 0.147 \times (\text{Price Consciousness}) + 0.096 \times (\text{Internal Reference Price Reliance}).
\end{align*}
\]

Hypothesis (H1) is not accepted as the as the psychological variables and the behavioral variables as a whole are not contributing similarly to the brand loyalty (it is explained by sig. values for the Wald statistics in the Table 3).

Hypothesis (H2) is not accepted as a few psychological predictors are contributing to the brand loyalty (it is explained by sig. values for the Wald statistics in the Table 3).

Hypothesis (H3) failed to be accepted as a few behavioral predictors are contributing to the brand loyalty (it is explained by sig. values for the Wald statistics in the Table 3).

Hypothesis (H4) is largely accepted as the statistics related to model and predictors are not very strong to suggest a matured market for private label brand in India.

Conclusion

Study aimed at having some understanding of consumption of private label brands in Indian market and to have a feel of variable contributing to loyalty towards such brands. The basic premise to study were the psychological and behavioral variables and it was a feeling somewhere in the mind of researcher that may be psychological variables as a whole are the contributor or the behavior only determines the loyalty. From the analysis of the model output, it is clear that there is no such clue. There are only a few contributors only. The reason being private labels are not very popular so far in Indian market. But it can be said that the private labels have got promising future. Retailers need to take their brand sincerely and differential themselves not only on the price front but on other frontiers also. They should start taking national brands head-on as it has already happened in US and European market. International organized retailers like Wal-Mart, Tesco and Sainsbury’s are able to give stiff competition to national brand through their private labels.

Limitations and Directions for Future Research

1. The private label brand attitude scale needs to be cross validated in the Indian market and data reliability needs to be checked.
2. A few more sample data are required to be collected to see if the model fit improves.
3. A few more predictors may be coming from the exploratory research might improve the model fit. Therefore, it is suggested to the future researchers to conduct such research.
4. Inclusion of categorical variables will certainly improve the model fitness. Therefore, future researchers are advised to do so.
5. Sample size posed a limitation as it was very low considering the size of NCR-Delhi market.

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