IMPACT OF MARKETING MIX ON CONSUMER BRAND PREFERENCE IN MILK POWDER INDUSTRY

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ABSTRACT

The objective of this research is to investigate the effect of marketing mix elements on consumer brand preference in milk powder industry. Marketing mix plays a vital role in consumer preference for brands because it is a business instrument that is used by the management of organizations which enable them to continue with the global competitive environment. The independent variables of the study are the marketing mix elements such as product, place, price and promotion. Consumer preference is the dependent variable.

Throughout the study researcher intend to find the impact of each element of marketing mix on consumer brand preference for milk powder products. Researcher selected Matara area as the research context and selected a sample with 200 respondents by generating 100% response rate. The nature of the sample is presented through percentage pie charts with the aid of Microsoft Excel 2013. Correlation coefficient and multiple regression analysis were used to analyze the data with the aid of statistical package for social sciences (SPSS) and researcher used the 95% confident level. The result revealed that marketing mix elements except place have significant effect on consumer brand preference. Among them, product is the most influential variable on the consumer brand preference in milk powder industry.

Keywords: Product, Price, Place, Promotion and Consumer Brand Preference

1. INTRODUCTION

The term marketing has changed and evolved over a period of time. Marketing can be defined as the process which identifies, anticipates and satisfies customer’s requirements profitably. In other words, marketing finds out what products or services customer want either now or in the future and provides those products or services to them at a price which leaves a profit for the business.

Modern marketing focuses on the customers very clearly and always looks at the business from the customers’ point of view and importance of customers and customers’ preference towards a brand has become essential thing in marketing. [1] Explained that it is undeniable that market power relies on customers given to the ever-increasing development of competition among business organizations. Today, customers have more opportunities to compare goods and services and managing their needs and demands has become more complex and specific.

Milk powder industry is a growing and very competitive industry in Sri Lanka. There are number of firms operating under this industry. All the firms are competing with each other to establish their brands in the industry. So the problem is related with the consumer preference towards a specific brand over the others. Each and every firms operating under the milk powder industry have to face a tuff competition with other brands in the industry.

According to [2] marketing mix is the set of controllable tactical marketing tools - product, price, place and promotion that the firm blends to produce the response it wants in the target market. The marketing mixes consist of everything the firm can do to influence the demand for its product.
When examining previous researches, there is very few researches examining the impact of marketing mix variables on consumer preference towards a brand. Therefore researcher mainly focuses on above mentioned elements and tries to study customers brand preference as an outcome of brand equity and to analyze the effect of different marketing mix elements might have on consumer’s final preference for milk powder brands.

1.1 Research Questions

- How Marketing Mix elements impact on Consumer Brand Preference in Milk Powder Industry?

According to research, Researcher developed Sub questions.

- How the product element of marketing mix impact on consumer brand preference in milk powder industry?
- How the price element of marketing mix impact on consumer brand preference in milk powder industry?
- How the place element of marketing mix impact on consumer brand preference in milk powder industry?
- How the promotion element of marketing mix impact on consumer brand preference in milk powder industry?

1.2 Research objectives

1.2.1 Main Objective

- To find out the impact of marketing mix on consumer brand preference in milk powder industry

1.2.2 Sub Objectives

- To find out the impact of product element of marketing mix on consumer brand preference in milk powder industry.
- To find out the impact of price element of marketing mix on consumer brand preference in milk powder industry.
- To find out the impact of place element of marketing mix on consumer brand preference in milk powder industry.
- To find out the impact of promotion element of marketing mix on consumer brand preference in milk powder industry.

2. LITERATURE REVIEW

2.1 Consumer Brand Preference

It is undeniable that market power relies on customers given to the ever-increasing development of competition among business organizations. Today, customers have more opportunities to compare goods and services and managing their needs and demands has become more complex and specific [1]. One of the main decisions in marketing is to determine a brand. It is any word, design, shape, voice, color or a combination of the above cases which is used to distinguish goods and services of a manufacturer or seller with goods and services of rivals. Brand is a trade name which is legal and the company acts under that name [1]. Choosing a brand requires much time. An appropriate name could play an important role in success of a product. The product and its benefits, the target market and marketing policies related to the product should thoroughly be studied in order to choose a brand.

2.2 Marketing Mix

Marketing involves a number of activities, to begin with, an organization may decide on its target group of customers to be served. Once the target group us decided. The product is to be placed in the market by providing the appropriate product, price, distribution and promotional efforts. Marketing mix is not a scientific theory, but merely a conceptual framework that identifies the principal decision making managers make in configuring their offerings to suit consumers’ needs [3].

The marketing mix is defined as 4P’s namely the product, price, promotion and place (Kotler & Armstrong, 2006). Marketing-mix decisions must be made to influence the trade channels as well as the final consumers. Typically, the firm can change its price, sales-force size, and advertising expenditures in the short run. However, it can develop new products and modify its distribution channels only in the long run. Thus, the firm typically makes fewer period-to-period marketing-mix changes in the short run than the number of marketing-mix decision variables might suggest [4].
2.2.1 Product

[5] define a product as anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need. They further define a consumer product as the product bought by the final consumer for personal consumption. Consumers buy products frequently, with careful planning, and by comparing brands based on price, quality and style. According to [6] product is a physical object that is sold and has a palpable characteristic, a complex set of benefits that can be used to meet customer needs.

2.2.2 Price

[4] defined price as a cost of producing, delivering and promoting the product charged by the organization. The price of products and services often influences whether consumers will purchase them at all and, if so, which competitive offering is selected [5]. According to [6], price includes issues such as discounts, list prices, credit, repayment term and conditions. The price is included in the price, product or service offered for sale and will determine the level of benefits. Price is the only element that does not include costs charged to the customers to buy products they take.

Pricing policy is the course of action or guiding philosophy that helps a business firm to make pricing decisions smoothly and perfectly. So, pricing is the key to marketing strategy and acts not only as a weapon to counteract competitors but also ensures survival of enterprise [7].

2.2.3 Place

Goods are produced to be sold to the consumers. They must be made available to the consumers at a place where they can conveniently make purchase. [8] gave “distribution” as another name for place. According to them, it is the third element of the marketing mix, and it encompasses all decisions and tools which relate to making products and services available to customers.

[9] defined place as any way that the customer can obtain a product or receive a service. Also, place strategy calls for effective distribution of products among the marketing channels such as the wholesalers or retailers [5]. According to [6], place includes issues such as distribution channels, market coverage, product inventory, transportation and distribution sites.

2.2.4 Promotion

According to [6], promotion includes issues such as advertising, personal selling, sales promotion, public relations and direct marketing. Distribution channels are the most important questions about how an organization can optimize a connection between inner and outer channels. Marketing communication mix (Promotion mix) consists of the specific blend of advertising, personal selling, sales promotion, public relations and direct marketing tools that the company uses to pursue its advertising and marketing objective [7].

Promotion brings an interactive dialogue between an organization and its customers and it takes place during the pre-selling, selling, consuming and post-consuming stage. Such promotional elements include: sales promotion, advertising, sales force, public relation and direct selling [10].

3. CONCEPTUALIZATION

![Conceptualization Diagram]

**Source:** Developed by the researcher
4. HYPOTHESES

H$_{1A}$: There is an impact of product on consumer brand preference in milk powder industry.

H$_{1B}$: There is an impact of price on consumer brand preference in milk powder industry.

H$_{1C}$: There is an impact of place on consumer brand preference in milk powder industry.

H$_{1D}$: There is an impact of promotion on consumer brand preference in milk powder industry.

5. METHODOLOGY

Sampling frame is the all housewives in Matara district. For the convenience, the researcher selected 200 housewives as the sample size. The researcher used convenient sampling method to collect primary data from the housewives in Matara district.

The questionnaire had two parts. The first section of the questionnaire compromised with questions to get respondents’ demographical information. Second part of the questionnaire assessed their preference towards the milk powder brands and the marketing mix elements. Marketing mix elements were measured by sixteen (16) questions, developed with the assistance of the questionnaire developed by [11]. Consumer preference was measured by developing sixteen (16) questions with the assistance of [12].

6. RESULTS AND DISCUSSIONS

6.1 Correlation Analysis

Table: 6.1 Output of the correlation

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable (CP)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>0.827</td>
<td>0.000*</td>
</tr>
<tr>
<td>Price</td>
<td>0.746</td>
<td>0.000*</td>
</tr>
<tr>
<td>Place</td>
<td>0.432</td>
<td></td>
</tr>
<tr>
<td>Promotion</td>
<td>0.852</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

(Source: Survey Data)

Note: * Correlation is significant at the 0.05 level (1-tailed)

CP – Consumer Preference

[13] explains a Pearson Correlation Matrix will indicate the direction, strength and significant of the various relationship among all the variables that were measured at an interval or ratio level and the variables are significant if the P<0.05.

The table 6.4 displays the correlation coefficient between independent and dependent variables and all the independent variables except place have a strong positive relationship with the dependent variable (product 0.827, price 0.746 and promotion 0.852). Place element of the marketing mix has a moderate relationship with consumer preference (0.432) and since the 0.000 < 0.05 all the relationships between the variables were significant at 95% confidence level.

6.2 Regression Analysis

All variables were significant in the correlation test and then by using those variables researcher has done the multiple regression with step vice method for regression procedure. [14] explained that the dependent variable should be in a normal distribution to apply the parametric techniques. Hence researcher performed the normality test so that researcher can apply the regression analysis.

Accordingly the dependent variable of the current study has normally distributed in a sufficient level since the P value for dependent variable (Consumer Preference) was 0.087 because if the P value is greater than the 0.05 level, the sample is normally distributed [14].
6.3 Hypothesis Testing

Table 6.2 Coefficients table of the output

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>Std.Error</th>
<th>Sig.</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.008</td>
<td>0.099</td>
<td>0.938</td>
<td>-0.205</td>
<td>0.189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>0.466</td>
<td>0.053</td>
<td>0.000</td>
<td>0.031</td>
<td>0.571</td>
<td>0.477</td>
<td>2.098</td>
</tr>
<tr>
<td>Price</td>
<td>0.274</td>
<td>0.053</td>
<td>0.000</td>
<td>0.169</td>
<td>0.379</td>
<td>0.416</td>
<td>0.2403</td>
</tr>
<tr>
<td>Promotion</td>
<td>0.290</td>
<td>0.078</td>
<td>0.000</td>
<td>0.134</td>
<td>0.445</td>
<td>0.263</td>
<td>3.799</td>
</tr>
</tbody>
</table>

Source: Survey Data

[15] mentioned that correlation among independent variables raises the multicollinearity issue. Using the Variance Inflation Factor (VIF) the researcher further tested for the multicollinearity. VIF should be less than 10 and the tolerance should be more than 0.2 for less multicollinearity. Table 4.2 depicts all the VIF values are less than 10 and the tolerance is more than 0.2. It directs for less multicollinearity among independent variables.

H1A - There is an impact of product on consumer preference in milk powder industry.

According to [16], the P value should less than 0.05 and there should not be zero between the lower bound and the upper bound of the confidence interval to confirm the significance of the parameters. Therefore according to table 4.2, the product was significant at the 95% confidence level since P value of the product (0.000) was less than the 0.05 and zero was not between the lower bound and upper bound of the confidence interval. Hence researcher can conclude that there is an impact of product on the consumer preference in milk powder industry and hence there is enough evidence to accept the hypothesis one.

H1B - There is an impact of price on consumer preference in milk powder industry.

The P value for the price factor was 0.000 and it was less than the accepted significant level and therefore there were enough evidence to accept the hypothesis two. Similarly, there was an impact of price on consumer preference and hence hypothesis two was supported by the result.

H1C - There is an impact of place on consumer preference in milk powder industry

Table 6.3 Excluded Variable from the model three

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>Sig.</th>
<th>Partial Correlation</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Minimum Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>-.059</td>
<td>.184</td>
<td>-.136</td>
<td>.728</td>
<td>1.373</td>
<td>.254</td>
</tr>
<tr>
<td>Place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Survey Data)

The table 4.3 depicts the excluded parameters from the model. As the table displays 0.000<0.05 and the zero was within the confident interval. Hence researcher can conclude hypothesis three was not supported at 95% confident level.

H1D - There is an impact of promotion on consumer preference in milk powder industry.

The promotion was significant at the 95% confidence level since P value of the promotion (0.000) was less than the 0.05 and the absence of zero between the lower bound and upper bound of the confidence interval. However, this was a positive relationship and therefore researcher can conclude promotion positively impact on the consumer preference and hence hypothesis four was supported. This implied that product, price and promotion have significant effect on consumer preference for milk powder industry, while the place element of the marketing mix is not significant. Therefore, the H1C (Price) is rejected, while other hypotheses are accepted.
Table 6.4 Results of Hypotheses

Source: Survey Data

6.4 Significant of the model

6.4.1 Goodness of fit of the model
After confirming the significance of each parameter, the display the model summary of the all hypothesis of the current study.

Table 6.5 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0.928</td>
<td>0.862</td>
<td>0.857</td>
<td>0.23681</td>
<td>1.786</td>
</tr>
</tbody>
</table>

(Source: Survey Data)

[14] explained that R2 is a measure of how much of the variability in the outcome is accounted for by the predictors. According to table 4.4 the value of R2 (0.862) represented that among all the factors which affect to consumer preference, 86% was represented by the product, price and promotion while the remaining 14% could be due to the effect of extraneous factors.

The Durbin-Watson value signals whether the assumption of independent errors is tenable or the correlation between residuals (Field, 2008). Researcher can confirm that the residuals are uncorrelated to some extent since the Durbin-Watson value of the study close to the accepted level (2).

6.4.2 Analysis of Variance (ANOVA)
The fit of the whole regression model can be explained by using the Analysis of Variance (ANOVA) table [14].

Table 6.6 Output of the Analysis of Variance (ANOVA) table

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>33.566</td>
<td>3</td>
<td>11.189</td>
<td>199.522</td>
<td>0.000</td>
</tr>
<tr>
<td>3 Residual</td>
<td>5.383</td>
<td>96</td>
<td>0.056</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38.949</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Survey Data)

ANOVA tests whether the model is significantly better at predicting the outcome. If the P value < 0.05, the model is significant [14]. As depicted in table 4.5 the P<0.000 and hence researcher can justify the significance of the whole model of the current study at 95% confidence level.

6.4.3 Fitted Regression Equation
The standardized regression coefficients or beta coefficients allow the researcher to compare the relative effects of the independent variables on the dependent variable when independent variables are measured in different
measurement scales [13]. After testing the significance of the whole model to identify the impact of predictors on the response variable, researcher developed the regression equation as follows.

\[
CP = \beta_0 + \beta_1 P1 + \beta_2 P2 + \beta_3 P3 + \beta_4 P4 + ei
\]

Where:
- \(CP\) – Customer Preference
- \(P1\) – Product
- \(P2\) – Price
- \(P3\) – Place
- \(P4\) – Promotion
- \(\beta_0\) – Constant
- \(\beta_1, \beta_2, \beta_3, \beta_4\) - Coefficients of Independent Variables
- \(ei\) - Error Term

\[
CP (\text{Consumer Preference}) = -0.008 + 0.466 \text{Product} + 0.274 \text{Price} + 0.290 \text{Promotion}
\]

The intercept of the regression equation is -0.008 and it indicated that if the product, price and the promotion was zero the consumer preference stated to be very low indicating -0.008.

If the product is increased by one unit the expected consumer preference is increased by 0.466 units, while the price and promotion are held constant. Therefore product element of the marketing mix is positively impact on consumer preference in milk powder industry.

Similarly price has a positive relationship with the consumer preference. Therefore the expected consumer preference is increased by 0.274 units if the price is increased by one unit, when all the other factors held constant.

There is a positive impact of promotion on consumer preference in milk powder industry. Therefore the expected increase in consumer preference is 0.290, if the promotion is increased by one unit when both product and promotion are held constant.

In summary among the factors which have an impact on consumer preference product take the prominent place since it has higher \(\beta\) value (0.466) than others. Therefore firms should pay a considerable attention on product to improve the consumer preference for their brands.

7. CONCLUSION

Brand preference is a strong assurance between a brand and a customer. Marketing mix plays an important role in consumer preference towards brands, because marketing mix is a business instrument that used by the management of organizations which enable them to continue with the global competitive environment. Researcher concluded five main things from the current study. First, both researchers and practitioners accept the consumer preference as an important observable fact. However, it is hard to find the consumers with more brand preference. Researcher concluded that consumer preference is an essential for milk powder products. Hence, it confirms the research problem.

Second, product element of the marketing mix is the most positively influential element on consumer preference for milk powder industry. Results of the study revealed that product with more taste and more features lead to enhance the consumer preference. Third, price element of the marketing mix is significantly positively impact on consumer preference for milk powder brands. Results of the study reveal that discounts, appropriateness of prices and competitiveness of prices when comparing to other brands and the quality contribute to enhance the consumer preference.

Fourth, the place element of the marketing mix is not significantly positively impact on consumer preference for milk powder industry. Though the previous researchers confirmed that there was a relationship between the place and the consumer preference, it is not supported by the results of the current study in this context. Fifth, promotion element of the marketing mix is significantly positively impact on consumer preference for milk powder brands. According to the results of the study creativeness of the advertising campaigns compared to other
competing brands, special offers from time to time and favorable word of mouth positively related with the consumer preference for milk powder products.

Finally, on the basis of the findings of the present study, it can be concluded that price, product, and promotion were jointly and independently predict consumer preference except place element. In summary product is the most influential variable to the consumer preference for milk powder while place is not an important factor for milk powder products. There may be other factors which affect to consumer preference for various brands and the place elements of the marketing mix may be significant for other brand in different context. Therefore future researchers will have opportunities to investigate those relationships.

8. RECOMMENDATIONS AND IMPLICATIONS OF THE STUDY

Since the product is the most influential factor on consumer preference the companies should produce superior products with superior features, higher taste and attractive packaging to attract customers. Since promotion is more important to increase the consumer preference they should pay more attention on promotion activities. The existing promotional campaigns of milk powder manufacturing firms should be organized to attract and retain more customers by providing free issues and an entertainment to consumers. Especially, they should launch promotional campaigns by focusing on a particular area to enhance the consumer preference. They can charge reasonable and competitive prices when compared to other brands and promote widely, and provide other unique functional benefits to consumers. Further they need to pay more attention to their customers in order to understand their needs and expectations as well and to keep in touch with them.

9. REFERENCES


