Giving Opens The Way For Receiving!! ... A Microscopic View Into Selection Of Tea Brand In India

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ABSTRACT

Tea has played a role in almost all cultures and customs. The Indian Tea Industry is about 176 years old. Satisfying customers' wishes is a challenge for many companies in the today's rapidly changing and keenly competitive environment in today's Tea industry. In this experiment with, seven product attributes of tea where each attribute has three performance levels have been designed for conjoint analysis. The first influencing factor is the preference of the type of tea where packaged tea has the highest utility as it captures the maximum of Tea market in India as compared to loose or tea bags which are mostly not preferred by the consumers. As consumers are very loyal towards the Tea brand which they purchase and hence we can see the most important criterion or influencing factor while selection of tea is the Brand name followed by the family opinion as traditionally the family believes to have a good taste of tea which should act a stimulant and psychological preference and family preference does matter when purchasing a tea. The pricing is the fourth important factor influencing the choice of tea. The most preferred attributes for tea are Variety of tea should be leaf with medium pricing where selection criterion of tea is good taste and brand name influences the consumer the highest and Tea should preferably be present at all General Store Outlets and preferred convenient packaging for consumers is Carton Boxes.

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1.0 INTRODUCTION

Tea has played a role in almost all cultures and customs. The Indian Tea Industry is about 176 years. The fulfillment of customers' wishes in a profitable way requires that companies understand which aspects of their product and service are most valued by the customer. A thorough knowledge of customer needs is even considered to be the foundation on which a company is built (Mohr-Jackson, 1996). It's an important task of a company's marketing department is to create a profit maximizing bundle of product or service attributes or in other words a profit maximizing value proposal. The main question which has to be answered is - how to use the limited resources of the company in product and service design and development to maximize its profit.

2.0 LITERATURE REVIEW

For understanding customer needs and studying them systematically it is necessary to be familiar

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with the concept of creating value to the customer. Walters and Lancaster (1999) have stated that value is created by any product or service attribute, which motivates the customer to buy the product and takes him closer to achieving his goals. Attributes of a product or service that create value to customers can be divided into (Woodall, 2003):

1) Factors that enhance customer's benefits or help to satisfy his needs,

2) Factors that decrease customer's costs.

It is pointed out that brand can create value to customers (Best, 2002). And of course there usually are industry specific factors that customers perceive as valuable. Customers usually name many factors as needs. It is reasonable to organize them into a hierarchic structure — as the first order, secondary and if necessary also the third level needs. To estimate the importance of customers' needs most frequently simple 5- or 7-point rating 6066

scales are used. Often, the result is that customers consider most of factors identically "extremely important" (Gale, Wood, 1994).

3.0 RESEARCH METHODOLOGY

Total respondents of 150 were selected consisting of Consumers, Retailers, Distributors, C&F, Employees involved in the Tea Brand distribution chain to whom the Questionnaire has been administered and relevant information through Interview process face to face, skype and telephonic process with each was done to collect the relevant information for the research paper.

In our research paper we have focused on psychographic & behavioral segmentation variables using Conjoint Analysis followed by CART Analysis (Decision tree) to understand perceptual mapping to understand the important brand and the attribute contemplated by the consumers and retailers with respect to tea in India

3.1 OBJECTIVE:

- To study the factors effecting the consumers when choosing the tea brand
- To study the market preference of the tea brands and what strategy to used when entering the market
- To study the factors effecting the retailer perception when selling tea product The factors effecting the purchase decision of the consumers when choosing the tea brand.

Figure 1: BRAND RECALL



highest and closest to vector is Red Label highest and closest to vector is Wagh Bakri

Understanding the customer specifications • for increasing the customer value towards a Tea Brand.

4.0 DATA ANALYSIS 4.1 FACTORS AFFECTING CONSUMERS' CHOICE

To study the first three objectives PerMap software has been used and the results are as follows: Two things are observed:

(1) The objective function is which is also known as error function, it bespeaks how distant the objects are from a good configuration. When multiple points are plotted on the perceptual map, we may not be able to correct the distance between them. There is always a scope of error which is indicated by Objective Function Value. The software by default diminishes this error. The objective function value for attribute rating for retailers is 0.023880. The value of R^2 for this attribute rating is 0.955

(2) In Permap the characteristic which are tested for are the vectors. The arrows are called attribute vectors which shows the direction in which the magnitude of that particular vector is increasing. The radius of an object from the arrow indicates how closely it is related to that characteristic. Had there been only one characteristic which is tested for then all the object would be on the same vector line. Since many attributes are tested at once the alignment of objects is adjusted to indicate its closeness correctly to each every vector attributes.

Figure 2: CONSUMER OFFERS



With respect to Brand Recall Attribute the With respect to Consumer Offers Attribute the

followed by Tata Tea, Society, Wagh Bakri and followed by Double Diamond, Red Label, Tata Double Diamond.

Tea, and Society.

Figure 3: PRICE



With respect to Price Attribute the highest and closest to vector is Wagh Bakri followed by Double Diamond, Red Label, Tata Tea, and Society.

Figure 5: INNOVATION IN PRODUCT



With respect to Innovation in Product Attribute the highest and closest to vector is Red Label followed by Tata Tea, Society, Wagh Bakri and Double Diamond.

Figure 7: QUALITY



With respect to Quality Attribute the highest and closest to vector is Society followed by Tata Tea, Wagh Bakri, Red Label, and Double Diamond.

Figure 4: RETAILER OFFERS



With respect to Retail Offers Attribute the highest and closest to vector is Double Diamond followed by Wagh Bakri, Red Label, Tata Tea, and Society.

Figure 6: VARIETY



With respect to Variety of Product Attribute the highest and closest to vector is Red Label followed by Tata Tea, Society, Wagh Bakri and Double Diamond.

Figure 8: PACKAGING



With respect to Packaging of Product Attribute the highest and closest to vector is Red Label followed by Tata Tea, Society, Wagh Bakri and Double Diamond.

Figure 9: AVAILABILITY



With respect to Availability Attribute the With respect to Loyalty towards the brand highest and closest to vector is Wagh Bakri followed by Red Label, Tata Tea, Society, and **Double Diamond**

Figure 10: BRAND LOYALTY



Attribute the highest and closest to vector is Society followed by Red Label, Tata Tea, Wagh Bakri, and Double Diamond.

A 1 1 COMPILED	ATTRIBUTE	DDFFFDFNCF	FOP 1	THE TEA	RRANDS
4.1.1 COMPILED	AIIKIDUIE	INTERENCE	FUR	INE IEA	DRANDS

	BRAND		CONSUMER	RETAIL	INNOVATION
ATTRIBUTES	RECALL	PRICE	OFFERS	OFFERS	IN PDT
		WAGH		DOUBLE	
1 ST RANK	RED LABEL	BAKRI	WAGH BAKRI	DIAMOND	RED LABEL
		DOUBLE	DOUBLE		
2 ND RANK	TATA TEA	DIAMOND	DIAMOND	WAGH BAKRI	TATA TEA
3 RD RANK	SOCIETY	RED LABEL	RED LABEL	RED LABEL	SOCIETY
	WAGH				
4 TH RANK	BAKRI	TATA TEA	TATA TEA	TATA TEA	WAGH BAKRI
	DOUBLE				DOUBLE
5 th RANK	DIAMOND	SOCIETY	SOCIETY	SOCIETY	DIAMOND
ATTRIBUTES	VARIETY	QUALITY	PACKAGING	AVAILABILITY	LOYALTY
1 st RANK	RED LABEL	SOCIETY	RED LABEL	WAGH BAKRI	SOCIETY
2 ND RANK	TATA TEA	TATA TEA	TATA TEA	RED LABEL	RED LABEL
		WAGH			
3 RD RANK	SOCIETY	BAKRI	SOCIETY	TATA TEA	TATA TEA
	WAGH				
4 TH RANK	BAKRI	RED LABEL	WAGH BAKRI	SOCIETY	WAGH BAKRI
	DOUBLE	DOUBLE	DOUBLE	DOUBLE	DOUBLE
5 TH RANK	DIAMOND	DIAMOND	DIAMOND	DIAMOND	DIAMOND

For every 1st rank 10 points are allotted to brand, 2nd rank 8 points and similarly 3rd rank 6, 4th rank 4, 5th rank 2 points respectively. The table is represented below according to the points allotted.

	BRAND		CONSUMER	RETAIL	INNOVATION
TEA BRAND	RECALL	PRICE	OFFERS	OFFERS	IN PDT
RED LABEL	10	6	6	6	10
TATA TEA	8	4	4	4	8
SOCIETY	6	2	2	2	6

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WAGH BAKRI	4	10	10	8	4
DOUBLE DIAMOND	2	8	8	10	2
TEA BRAND	VARIETY	QUALITY	PACKAGING	AVAILABILITY	LOYALTY
RED LABEL	10	4	10	8	8
TATA TEA	8	8	8	6	6
SOCIETY	6	10	6	4	10
WAGH BAKRI	4	6	4	10	4
DOUBLE DIAMOND	2	2	2	2	2

TOTAL TALLY POINTS ACHIEVED BY EACH BRAND ARE AS FOLLOWS:

TEA BRANDS	TOTAL SCORE
RED LABEL	78
ΤΑΤΑ ΤΕΑ	64
SOCIETY	54
WAGH BAKRI	64
DOUBLE DIAMOND	40

As per attribute rating of the retailers Red Label is ranked first preference followed by close preference for Tata Tea and Wagh Bakri alike, the third in preference is Society and the last in preference is Double Diamond. Wagh Bakri has scored top ranks in price showing price as the penetration strategy to increase market share followed by importance on promotional strategies like consumer offers and retail offers and with good distribution network which ranked first among the brands in terms of availability of the brand in the retail outlets. Hence based on attribute rating we can conclude that competitive pricing, efficient and timely distribution network, promotional strategies for both consumers and retailers are driving factors for tea brands to increase the market share in India and offer tough competition to the top players in the Tea industry.

4.1.2 RETAILER PERCEPTION OF THE CONSUMER'S PREFERENCE / REASONS WHILE PURCHASING A TEA BRAND



Figure 11: Retailer perception of consumer preference

The objective function also known as error function, it indicates how distant the objects are from a good configuration. There is a scope of error which is indicated by Objective Function Value. The software by default minimises this error. **The objective function value for attribute rating for retailers with respect to customers' preference for a particular tea brand is 0.023246.**

The priority on which customer's preference of a particular tea brand from a retail outlet is as

follows: Availability, Taste, Quality, Packaging, Loyalty, Price, Brand, Colour, Content, Production and Social belonginess. Most important areas which needs to be focused accordingly is availability and efficient distribution network, Quality of the product including taste and packaging is very important for any tea brand to sustain in the long run.

4.1.3 FACTORS CONSIDERED IMPORTANT BEFORE TAKING A DECISION TO KEEP RANGE & BRAND OF TEA IN THE RETAIL OUTLETS





The objective function value for attribute rating for retailers with respect to customers' preference for a particular tea brand is 0.000031 The priority on which Retailers keep a particular tea brand in their retail outlet is as follows: Timeliness of service, Customer Demand, Product Quality, Merchandizing, Extra Benefit, Foresight, Goodwill, Product Innovation and Inventory Management. Most important areas which needs to be focused accordingly is availability and efficient distribution network, Quality of the product is very important for any tea brand to sustain in the long run. Retailer correlate with the customers or the retailers do customer needs and as per requirements. Hence the first priority is on timeliness service of the product delivery on time (ie supply chain) should be strong and product should be as per customer preferences.

4.2 CUSTOMER SPECIFICATIONS FOR INCREASING THE CUSTOMER VALUE TOWARDS A TEA BRAND

Conjoint analysis means constructing and conducting particular experiments among consumers in order to model their decision making process. As the name suggests, potential customers are asked to make judgments about the attributes that affect their purchase decisions conjointly, rather than evaluate each attribute individually. Analysis allows finding out which product attributes create most value to a customer and how customers are likely to react to different product configurations. This information can lead to the creation of optimal value propositions. The research setting is made quite close to actual decision making in a real market: where the customer's task is to rank the different product alternatives which are offered to him and pick out the one that creates most value for him. Whereas ranking is based on personal preference to different attributes of every product alternative.

4.2.1 SELECTION OF VARIABLES & SAMPLE SIZE

In different studies it is found that the tolerance level of a respondent is 6–8 product attributes, depending on the motivation and product awareness of the respondent (Oppewal, Vriens, 2000). That is why the correct choice of product attributes is often considered the most demanding phase of conjoint analysis (Walley *et al.*, 1999).

For initial identification of customer wishes different techniques are used. The easiest perhaps is to use information gained from past customer interactions. Mail questionnaires, focus groups and in-depth interviews can also be used (Chan, Wu, 2002). It has been stated that for finding out 90–95% of all customer needs concerning a product, an experienced interviewer needs to make about 20–30 in-depth interviews with customers (Griffin, Hauser, 1993). However, the majority of studies have been limited to 5–17 interviews (Pullman *et*

al., 2002). Aaker (1997) has tackled in more detail the issue of the number of respondents.

In addition to picking out the most relevant product attributes, the examinable performance levels for every attribute have to be determined. A majority of studies have used 2–4 performance levels for every attribute (Oppeval, Vriens, 2000). Two criteria are usually kept in mind when choosing the product attributes and their performance levels (Gustafsson *et al.*, 1999):

- 1. The attribute levels should describe as closely as possible the real-life situation facing customers; attributes should be closely related to those products that are available to customers.
- 2. It is worthwhile to include factors which are considered to be company's key competencies in gaining a competitive edge.

Factors	Type 1	Type 2	Type 3
Variety of tea	Leaf	Dust	Blended
Pricing	Premium	Medium	Economy
Criterion Selection	Colour	Taste	Aroma
Influencing Factor	Brand name	Advertising	Family Opinion
Loyal Towards Tea Brand	Very Loyal	Somewhat Loyal	Not Loyal
Availability	All	Only at General Store Outlets	Only in Supermarket
Preference type of tea	Packaged Tea	Loose Tea	Tea Bags

Based on above review of the literature 10 in-depth interviews were conducted and the following factors & factor levels were selected

In this experiment with, seven product attributes where each attribute has three performance levels the number of alternative concept cards is $3^7=2187$. Most researchers have used only the minimum amount of concept cards that is needed to estimate efficiently the main effect of different attributes on variable (consumer's the dependent stated purchasing preference). Normally, possible interaction effects are omitted from analysis, assuming they are not strong (Gustafsson et al., 1999). The procedure of orthogonal design(also

called partial factorial planning) allows to reduce the number of combinations from 2187 to 27 using Taguchi Model (in MiniTab Software), which is enough to estimate efficiently (with sufficient reliability) the main effects.

Total respondents of 150 were selected consisting of Consumers, Retailers, Distributors, C&F, Employees involved in the Tea Brand distribution chain to whom the Questionnaire has been administered and relevant information through Interview process face to face, skype and telephonic process with each was done to collect the relevant information for the research paper.

4.2.1 RESULTS OF CONJOINT ANALYSIS

Based on Delta value and rank attached to product attributes single performance levels have been calculated. It was found that on average the most important attribute for customers is the preference for the type of Tea (Packaged Tea, Loose tea or Tea Bags) followed by loyalty towards Tea. This result is logical because the people always prefer packaged food to loose and the packages tea in Nagpur occupies between 65-70% of the total tea market segment. Tea is a morning stimulant and an essential indispensable factor of every household and hence people mostly don't experiment much when purchasing a Tea brand and hence Loyalty is the second factor influencing the customers. Next in importance are the influencing factor (brand name, family opinion and advertising) and pricing attributes, which form 3rd and 4th level of importance for customer's purchasing decision. The relative importance of the six attributes to all customers is on the individual level shown in TABLE 1 below

TABLE 1:

Taguchi Analysis: Response_1, Response_2, versus Variety of T, Pricing,							
Response Table for Signal to Noise Ratios Larger is better							
			Loyalty towards				
	Variety		Criterion	Influencing	Tea		
Level	of Tea	Pricing	Selection	Factor	brand	Availability	
1	13.25	12.85	13.08	13.37	13.41	12.77	
2	12.82	13.46	13.41	12.70	13.19	13.38	
3	13.24	13.01	12.83	13.24	12.72	13.16	
Delta	0.43	0.61	0.58	0.66	0.69	0.61	
Rank	8	4	7	3	2	5	
	D	Db-					
	Preference Packaging						
	type	pr or	tea				
Level	t	ea prefe	rred				
	13.	74 1	2.79				
2	12.	77 1	3.15				
3	12.	81 1	3.37				
Delta	υ.	97	0.58				
Rank		1	6				

From the figure below the first influencing factor is the preference of the type of tea where packaged tea has the highest utility as it captures the maximum of Tea market in India as compared to loose or tea bags which are mostly not preferred by the consumers. Where the Company sells the convenient packs in Carton Boxes which we again see that in types of packaging carton boxes have been the most highly preferred followed by pouchs & Jars. As consumers are very loyal towards the Tea brand which they purchase and hence logically we can see the most important criterion or influencing factor while selection of tea is the Brand name followed by the family opinion as traditionally the family believes to have a good taste of tea which should act a stimulant and psychological preference and family preference does matter when purchasing a tea. As it is a dayto-day item people generally and traditionally prefer to purchase it from the General Store outlets situated close to their residence. As consumers are very loyal towards a tea brand, hence advertising does not have much influence in selection of Tea brand as also can be seen from the figure below. The pricing fourth important factor influencing the choice of tea where High (Rs.300-400 / Kg), Medium (Rs.200-300 / Kg) and Low (Less than Rs.200/kg) where consumers prefer not premium pricing nor low pricing but medium pricing preferable for all segment of customers.



Figure 14:

Using the best fit factors - the highest response value for the combination is predicted -

```
Taguchi Analysis: Response_1, Response_2, ... versus Variety of T, Pricing, ...
Predicted values
   Mean
            StDev
5.96970
         0.648084
Factor levels for predictions
                                           Loyalty
Variety
                  Criterion
                             Influencing
                                           towards
of Tea
         Pricing
                  Selection
                             Factor
                                           Tea brand
                                                     Availability
leaf
         Medium
                  Taste
                             BrandName
                                           VeryLoyal
                                                      OnlyatKiranaOutlets
                      Packaging
Variety
         Preference
                      of tea
of Tea
         type pf tea preferred
leaf
         PackagedTea CartonBoxes
```

The most preferred set as shown in figure above is

Variety of tea should be leaf with medium pricing where selection criterion of tea is good taste and brand name influences the consumer the highest and Tea should preferably be present at all General Store Outlets and preferred convenient packaging for consumers is Carton Boxes.

4.3 CART ANALYSIS

Classification and Regression Trees (CART) give an intuitive way to model data. They can be used to construct models, but they are also very useful in exploring data. In particular, when a predictor has numerous levels, CART modelling can be used to group those levels into broader categories.



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Figure 15: Regression Tree Analysis

The rating given by consumers to the profile set derived from Taguchi model is used to determine the category most affecting the consumer choice for tea selection. From above we can clearly see that Criterion selection and Preference of type of tea are two most important factors effecting choice of consumers in India.

Packaging of tea preferre

5.0 CONCLUSION

As per attribute rating of the retailers Red Label is ranked first preference followed by close preference for Tata Tea and Wagh Bakri alike, the third in preference is Society and the last in preference is Double Diamond. Hence based on attribute rating we can conclude that competitive pricing, efficient and timely distribution network, promotional strategies for both consumers and retailers are driving factors for tea brands to increase the market share in India and offer tough competition to the top players in the Tea industry. The priority on which customer's preference of a particular tea brand from a retail outlet is as follows: Availability, Taste, Quality, Packaging, Loyalty, Price, Brand, Colour, Content, Production and Social belonginess. The priority on which Retailers keep a particular tea brand in their retail outlet is as follows: Timeliness of service, Customer Demand. Product Quality, Merchandizing, Extra Benefit, Foresight, Goodwill, Product Innovation and Inventory Management. The most preferred combination is Variety of tea should be leaf with medium pricing where selection criterion of tea is good taste and brand name influences the consumer the highest and Tea should preferably be present at all General Store Outlets and preferred convenient packaging for consumers is Carton Boxes. Criterion selection and Preference of type of tea are two most important factors effecting choice of consumers in India.

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