

A STUDY OF CHANGING INDIAN FOOD MARKET STRUCTURE

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Abstract:

Traditional market structure definitions include grouping products based on product attributes or consumer demographics. This study has taken up a new *situation oriented approach* to categorize products redefining the market structure based on how a consumer views it in terms of the “*job accomplished*”. The article also talks about a new technique called “Situation-of-Usage” (devised using a special case of Analytical Hierarchical Processing (AHP)) to elucidate the situation-based categorization. The analysis of the results yields insights into how the consumer categorizes the products based on situations and hence, enables marketers to clearly define their market structure, identify competition appropriately according to usage situation and also, to assess gaps, if any in the market.

Introduction:

The rapid change in the food consumption habits among the Urban Indian consumers, especially the younger generation has spurred the entry of a number of foreign quick service restaurants. We shall analyze and understand how they have leveraged the increasing appeal towards these international cuisines from a consumer perspective and how the consumer has placed these new products along with the existing ones based on situations/ job that they are getting done. This will enable brands entering a market to identify whom they are competing against or to identify gaps in the space and hence, position themselves strategically. A new technique based on Analytical Hierarchical Processing called “Situation-of-Usage” describes the data elucidation for the situation-based categorization. Then applying the technique to categories where the food habits and the number of new products from the foreign entrants have been significantly high provides business insights into their modified product market structures.

Indian Food Industry: Growing Western Interests

Following the first McDonald store, which was set up in 1996 in India, the doors opened for many other international chains. Also with 60% of Indian Population below the age of 30years, the changing lifestyle patterns with more disposable income and time conscious younger generation dominates the concerns of the consumer market. The study focuses on categorizing ten products in three categories that closely connect with the new generation consumers - namely snacks, cold beverages and frozen desserts and structures them based on situations from a consumer point of view. These products include some recent entrants in the Indian space like Tacos, Burritos, and Yogurt etc. A special case of AHP through a board game demonstrates a novel method to capture the thoughts of 30 respondents for this purpose.

Product Categories at a Glance:

Based on extensive research and interaction with consumers in the age group of 18-27, the below product categories have been narrowed for the study of the product market structure. These are the categories, which have successfully created new habits, and the numbers of new products from the foreign entrants have been significantly high.

(1) **Snacks** :

Traditionally, Indians are known for their snacking habits and the recent increase in the consumption of the snacks like Pizza, Burgers etc. and their perception as a substitute for a skipped meal proves as an interesting point to consider this market.

(2) **Frozen Desserts** :

Though the category has been traditionally dominated by the Ice-creams, now the boundary extends beyond them with the entrants like Yogurts, Frozen Pies etc., Though the yogurts was introduced as a breakfast substitute, interestingly most of the Indian Consumers consider them as a substitute to Ice Cream or Frozen Dahi. Hence, this category is sure to provide some interesting insights regarding the consumer's choice preferences.

(3) **Cold Beverages** :

Is the high usage of the packaged fruit juices and the cultural change of having mock tails providing a stiff competition to our traditional products like Fresh Juices, tender coconuts or they are very distinct in their usage situations is something of interest to be identified through the study.

Application of the “Situation-of-Usage” technique:

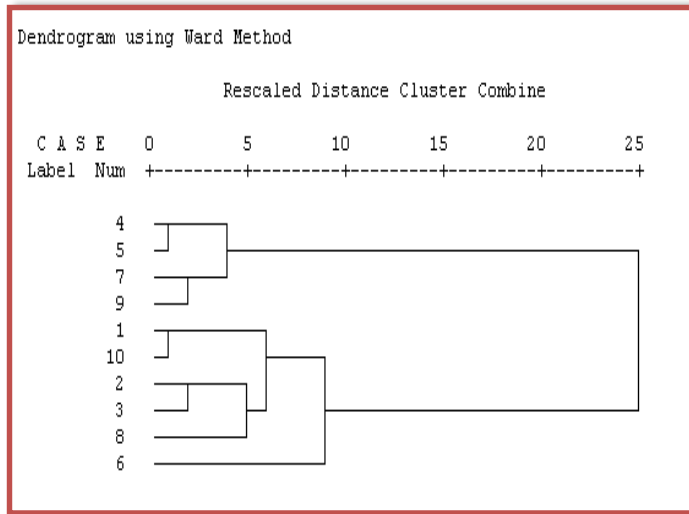
A novel approach to elucidate situations of usage for the products in the above categories has been devised with the help of a special case of Analytical Hierarchical Processing (AHP) considering the probability of evaluating all the situations with equal probability and importance. The procedure used is a combination of multiple techniques in order to identify the common usage situations and the potential substitutes under a given situation. The situations are elucidated similar to the free response method and substitution-in-use methods.

- The respondents are provided with a set of products which are considered to belong to the specific category, say Frozen Desserts.
- They are requested to divide the products into groups depending on the context in which they use them or the benefits for which they use them.
- The respondent might first group similar products and then identify the common context or list down the situations first and then fit in products for a specific situation.
- The respondent can also add any other product they seem as potential substitutes in the situation they have listed. This will bring out the products which might have been ignored otherwise by us.
- The situations are listed and the frequency of each product as mentioned by the respondents in that context is listed.

Clustering of the Responses:

Going forward we shall derive the product groups from the consumer data using **Hierarchical Clustering** methods. Products group into same categories based on their underlying common usage situations. The frequency of the usage of a product in a particular situation is a pseudo for the importance associated with the situation and the calculations includes the importance data as well. From the clusters of products, the profiling of the specific cluster based on situations provides the consumption context for the particular group of products. Exhibit 1 below provides the Clusters of Product obtained through hierarchical clustering and the corresponding situations for each of the three categories. The context flows from profiling of these usage scenarios.

Category #1 - Snacks:



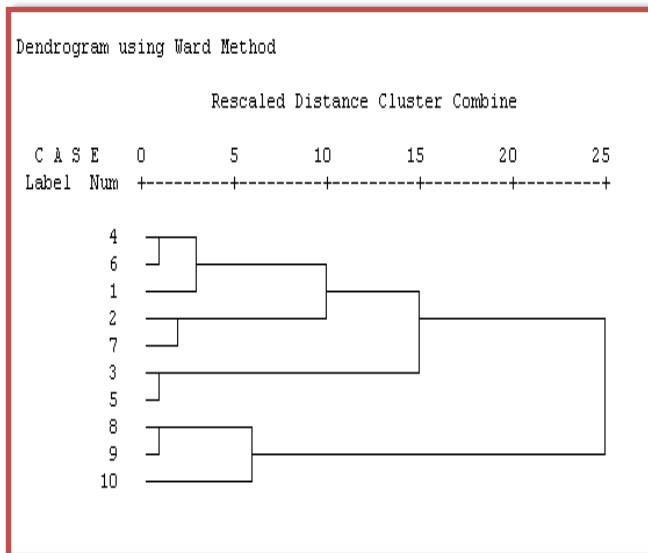
Code of the Products as used in Clustering of Snacks Market	
Namkeens	1
Chats	2
Donuts	3
Burgers	4
Pizza	5
Subway	6
Tacos	7
Nachos	8
Burritos	9
Chips	10

Product Market Structure For Snacks & their Situational Contexts					
Product Clusters	Namkeens , Chips	Burgers , Pizza	Tacos, Burritos	Chats, Donuts, Nachos	Subway
	Alone	Hunger	With Friends	With Friends	Hunger
	Night Snacks	With Friends	Hunger	Last Minute	Healthy
Associated Situations	Last Minute	Delivered to room		While Shopping	Indulgence- to break monotony
	Not in the mood to spend	Indulgence- to break monotony		Hunger	Ready to Spend
		Ready to Spend		Evening Snacks	
		Planned Purchase			
		Brunch			
Context Derived from Profiling	When I am bored	When I want to indulge in a private party with friends	When I want to eat something with my friends	When I need something to munch immediately	When I want to eat something different and healthy

Exhibit 1: Dendrogram and Clustering results of the Snacks Market.

Category #2 - Cold Beverages

Exhibit 2 shows the Dendrogram and the code used for interpreting the Dendrogram for the Cold Beverages Market:



Code of the Products as used in Clustering of Cold Beverages Market	
Energy Drinks	1
Flavoured Milk	2
Natural Drinks	3
Soya Milk	4
Fresh Juices	5
Probiotic Milk	6
Packaged Concentrated Fruit Drinks	7
Milk Shakes	8
Iced Tea/Cold Coffee	9
Mocktails	10

Exhibit 2: Dendrogram and Clustering results of the Cold Beverages Market.

Product Market Structure For Cold Beverages & their Situational Contexts				
Product Clusters	Energy Drinks , Soya Milk, Probiotic Milk	Flavoured Milk , Packaged Concentrated Fruit Drinks	Natural Drinks, Fresh Juices	Milk Shakes , Iced Tea/Cold Coffee, Mock tails
	Workout	While Studying	Workout	Party
Associated Situations	Health Consciousness	After Meal	Compliment to Food	On Date
	When Hungry for immediate energy	Nighttime instead of Tea	After Meal	After Meal
		Time pass	Health Consciousness	Nighttime instead of Tea
Context Derived from Profiling			Nutrition Seeking	Shopping at a Mall
	When I need Energy	When I need company	When I think I need something healthy	When I want to be seen as trendy

Category #3 - Frozen Desserts:

Similar procedure and interpretation of the results for the frozen desserts category yields the below situations, which the consumers associate with the consumption context:

- **When I want to show-off**
- **When I am hungry**
- **When I want to have fun**

- **When I need a dessert to complete my meal**

Business Implications for Usage Based Positioning:

Based on the above clustering and profiling results, several inferences regarding the redefinition of the market structure, Identification of potential competition (those extending beyond product features) and gaps for potential Blue Ocean Strategies are derived.

Snacks	Cold Beverages	Frozen Desserts
<ul style="list-style-type: none"> • All the snacks products are seen as products which can be consumed with friends. Hence, just <i>the association of the snacks as a means of hang-out with friends is not sufficient to differentiate</i> a product in the market. • The relatively <i>new entrants like Tacos, Burritos have failed to carve a unique situation</i> identity. Probably a positioning similar to Pizzas or Burgers as means of consumption with friends for indulgence (also their delivery of items stands out) could have helped. • Subway has been successful in associating itself with <i>health benefits within the snack market</i> which is usually seen as unhealthy. This <i>is a space new entrants can consider for new product positioning</i>. 	<ul style="list-style-type: none"> • Relatively the <i>different group</i> of potentially substitutable products identified is <i>considered to be used in distinct situations</i>. • <i>Soya Milk and Probiotic Milk are seen as a means of health drink</i> and hence instead of competing with mainstream Packaged Drinks, it should try to <i>strengthen its position as a substitute for energy requirements</i> as this is the mind space that these consumers occupy. • Other than the naturally prepared Fresh Juices and Natural drinks like tender coconut, there <i>aren't any products competing to satisfy the health conscious needs of the consumer</i>. This is a gap where branded players can enter in this category. 	<ul style="list-style-type: none"> • There <i>aren't many products which are competing in the situations associated with fun</i> which is just satisfied by snow cones and jellies which are dominated by unorganized players. This again provides a <i>gap for the branded players to contemplate</i>. • It is interesting to note that the products foreign to our culture like Pies, Mousse and Gelatos priced comparatively higher are seen to satisfy the Egalitarian needs. • The <i>consumption of Yogurt and Pastries when one is hungry suggests that they might even be a threat to the snacks</i> which are generally consumed in the Indian context to satisfy hunger. This is how the redefinition of the market will help identify the potential <i>competition that extends beyond the boundaries of the product attributes/categories</i>.

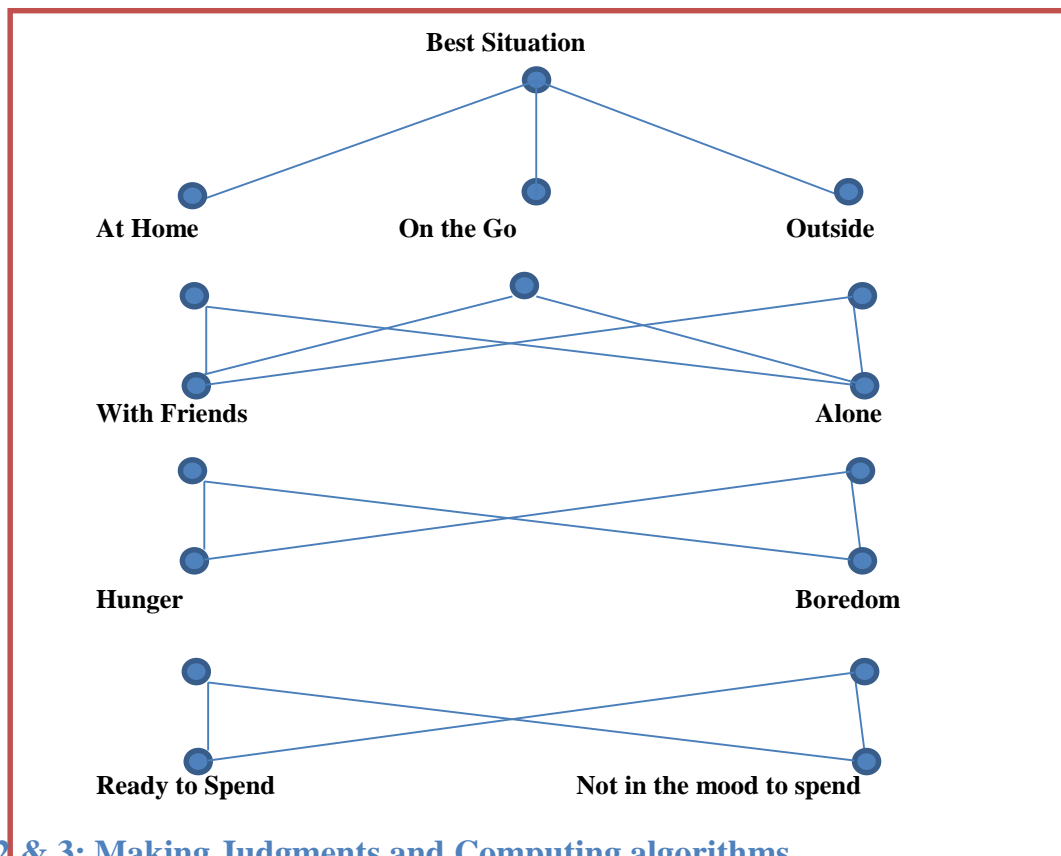
The above results can help yield several strategic implications for companies with insights on how to position the product and *bridge the gap between what the brand thinks the product stands for and competes against and what the customer thinks the product is required for and can be substituted with*.

Analysis of the situational context using Analytical Hierarchical Processing (AHP)

So far, we have used only a special case of Analytical Hierarchical Processing (AHP) with equal priorities using the “Situation-of-Usage” methodology. However, a complete application of AHP can identify the various courses of action that every individual has taken in order to identify different situational scenarios to classify the products. We shall now apply AHP to understand how one of the respondents has gone about the decision making for the product Pizza under Snacks category. This will enable the marketer to understand the thought process and hence leverage for an appropriate campaign/promotion of the products.

Stage 1: Hierarchy for choosing the best situational scenario

In this stage, the central objective to the decision making process is identified and hence, the various elements contributing to the objective are elucidated - Exhibit 3. In addition, establish the hierarchy between these elements to identify the appropriate course of action.



Stage 2 & 3: Making Judgments and Computing algorithms

Here we judge the relative importance between two elements (situations) in the same level. This is done by choosing preference of importance of one over another in a scale of 1 – 9. Once the comparison

Exhibit 3: Situational Hierarchy development for Pizzas

matrices are in place, calculate the local and global priorities amongst the various courses of action through a standard algorithm using geometric means (Exhibit 4).

Appropriate Situation

	At Home	On the Go	Outside	Geometric	Local Priorities after normalization
At Home	1	5	1/9	$(1 \times 5 \times 1/9)^{(1/3)} = 0.822$	0.1513
On the Go	1/5	1	1/9	0.281	0.0517
Outside	9	9	1	4.32	0.7968

Home	With Friends	Alone	Geometric Means	Local priorities after normalization
With Friends	1	1/5	0.58	0.25
Alone	5	1	1.709	0.7495

On the Go	With Friends	Alone	Geometric Means	Local priorities after normalization
With Friends	1	1/5	0.58	0.25
Alone	5	1	1.709	0.7495

Outside	With Friends	Alone	Geometric Means	Local priorities after normalization
With Friends	1	9	2.08	0.812
Alone	1/9	1	0.48	0.1875

With Friends	Hunger	Boredom	Geometric Means	Local priorities after normalization
Hunger	1	1/7	0.522	0.214
Boredom	7	1	1.912	0.785

Alone	Hunger	Boredom	Geometric Means	Local priorities after normalization
Hunger	1	3	1.44	0.675
Boredom	1/3	1	0.6933	0.324

Hunger	Ready to spend	Not in the mood	Geometric Means	Local priorities after normalization
Ready to Spend	1	5	1.709	0.745
Not in the mood to spend	1/5	1	0.584	0.254

Boredom	Ready to spend	Not in the mood	Geometric Means	Local priorities after normalization
Ready to Spend	1	6	1.817	0.767
Not in the mood to spend	1/6	1	0.55	0.232

Exhibit 4: Results of AHP for Pizzas

Once we have obtained all local priorities, *the global priorities are obtained by multiplication with the global priority of the element of the upper level.* Then the *course of action with*

maximun likelihood is chosen at each level and the path is drawn to identify the appropriate situational scenario into which pizza falls in this case it is :

Pizza

Outside (79%) → With Friends (65%) → Boredom (50.7%) → Ready to Spend (38.9%)

This can be repeated for all products of the 3 categories for every respondents to arrive at the bucket in which they cluster the products based on situations. *The result of this exercise will yield clear classifications based on the situations in a category as to how a product is classified in the minds of the consumer.* Softwares have been developed to carry out the same.

Conclusion - Identification of the White Spaces

The above results will help marketers identify and *redefine competiton based on how the consumer mind works in a particular situation*. The groupings of various products in the categories under study such as snacks, cold beverages and frozen desserts will help understand how a consumer views these as substitutes in use and also what job a consumer gets done by consuming the product in that situation. Once a marketer is aware of this, they can bridge the *gap between brand image and brand identity by clearly positioning the product in the space where the consumer is buying for and also, against the appropriate competition*. This will provide a huge competitive advantage to the brand and also, the communication will be clear to the customer and therefore, the customer is not confused. Once the right competition is identified, it will also help the brand to react correctly to the approporiaste competitor moves and hence, not lose out to the dynamics of the market scenario.

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