

# The Impact of Reference Groups and Product Familiarity on Indian Consumers' Product Purchases

Yu, Jong Pil\* · Payal Kaishap Dutta\*\* · Dawn Thorndike Pysarchik\*\*\*

## <Abstract>

Less than 3% of India's food basket, consists of processed food, therefore processed food can be viewed as an innovation or new product to Indian consumers. This research investigates the effects of product familiarity and reference groups on Indian consumers' attitudes and purchase behavior of new processed food products. For the study, the model is developed by modifying Cambel and Goodstein's (2001) "Moderate Incongruity Effect" to include important cross-cultural influences on attitudes and purchase decisions among Indian consumers. Empirical analysis was conducted through structural equation modeling (SEM). SEM results indicated that reference group influence has a stronger positive effect on consumers' attitudes and actual purchase behavior of more familiar processed foods than of less familiar processed food. In addition, attitudes have a stronger positive effect on consumers' actual purchase of more familiar than of less familiar processed foods.

Key Words: Reference Group, Product Familiarity, Product Purchase, Consumer's Attitude, Indian Processed Food

## Introduction

India is among the world's major producers of food, producing over 600 million tons of food products every year. Packaged food consists of the semi-processed and ready-to-eat / packaged food industries. Less than 3% of India's fresh produce is processed into value added products (COMPSTRAT Country/ Sector analysis reports 2001). Because

processed food constitutes less than 3% of India's food basket, it can be viewed as an innovative or new product to Indian consumers.

Even though fresh foods dominate consumers shopping lists there is a changing trend in India. Due to a growing population of working women, shrinking family size, opening up of the market to certain imported food product categories there is an increasing variety of processed foods and further, increasing

\* Full Time Lecturer, School of Business, Sejong University, Corresponding Author, yujongpil@sejong.ac.kr

\*\* Michigan State University

\*\* Professor, Department of Advertising, Public Relations and Retailing, Michigan State University

literacy levels in urban areas have lead to higher incomes and have created an immense potential market for processed food in India. In order to better understand these one billion Indian consumers, it is important to study cultural differences that influence new product purchases (processed food) (Promar International, 2000).

Some of the major factors that make India an attractive market to international processed food players are the reduction of tariffs and barriers on certain imported products, changing consumer attitudes and lifestyles, size of the market, large domestic industry base therefore leading to opportunities for joint ventures and media exposure of consumers leading to awareness of international tastes and new products (Promar International, 2000).

The purpose of this research is to investigate the effects of product familiarity and reference groups on Indian consumers' attitudes and purchase behavior of new processed food products.

This article is structured as follows: overview of the Indian processed food market, perception of processed food in India, followed by the conceptual model, explanation of the constructs and hypotheses, methods and results followed by discussion and conclusion.

## Indian Processed Food Market

The food retail sector is considered to be the "sunrise" in Indian industry. Next to China, India is the second largest producer of food, and has the potential to lead the world food and agricultural market. India's processed food industry contributed US \$29 billion out of a total estimated India food market of US \$92 billion in 2005 (India in Business, 2006). Food processing is the fifth largest industry in India, contributing over 6% to the GDP, and accounting for 13% of the country's exports (Reserve Bank of India, 2005, p.15). The semi-processed and ready to eat packaged food industry is over US \$1 billion and is expected to increase by over 20% annually through 2010 (U.S. & Foreign Commercial Service and U.S. Department of State, 2003, p. 66).

However, most Indian consumers are price sensitive and are not willing to pay a premium for expensive frozen or canned products when they can purchase and prepare fresh food, therefore the market for processed food is confined mostly to the urban areas. Low purchases of mass-produced convenience foods and other value added products are due to the cooking habits and a high percent of women not outside the home in India.

## Perception of Processed Food in India

Traditionally, food was primarily cooked at home and there was feelings of guilt associated with serving ready-to-cook or ready-to serve food. Women do the majority of the shopping and make most of the food buying decisions. Semi-processed / processed foods are bought as novelty items and not as a part of regular shopping for Indian housewives (Promar International, 2000).

The “fresh food” concept is ingrained in the Indian psyche; there are several reasons for this. The majority of Indian women do not work outside the home; easy availability and low costs of household help, and lack of refrigeration and storage space to keep the preserved or processed food (Promar International, 2000).

There is a mixed perception of processed food. It is seen as ‘cleaner’ and of higher quality than unpackaged, unbranded, and raw foods. However many Indians are worried about the food-additives and preservatives associated with processed foods (Promar International, 2000). As a result, some consumers perceive processed foods as unfresh and not good for ones health.

Findings from Mathur and Hemandra (2000) study indicated that to overcome some of the barriers towards processed

food, they should be positioned as the following: Pure; 100% quality assurance; consistent quality; no quality deterioration during the defined period of consumption; superior to comparable commodity products.

Even though these barriers exist, the share of processed food is increasing. Key factors that are driving this growth are the increasing numbers of working couples and increasing influence of the youth due to: scarcity of time; openness to try new ideas/concepts/products; relatively more affluent and higher spending power compared to other segments (Mathur and Hemendra, 2000).

## CONCEPTUAL FRAMEWORK

This study uses Mandler’s (1982) “Schema Congruency Effect” and Cambel and Goodstein’s (2001) “Moderate Incongruity Effect” as the conceptual framework. These models are modified to include important cross cultural influences on attitudes and purchase decisions among Indian consumer.

We will start by explaining the key constructs of these conceptual frameworks. Schema congruity is based on categorization theory. This theory states that people divide the world of objects

into categories in order to efficiently process their environment (Rosch 1975; Rosch and Mervis 1975; Rosch et al. 1976). This categorization is in the form of product category schemas, for example attributes associated with a soft drink schema are carbonation, slightly sweet taste, and packaged in cans or plastic bottles this product category schema would be termed as the superordinate level. If a new brand of beverage "Slice" is launched and is positioned in the soft drink category that is it has most of the attributes of the soft drink schema but also has an attribute not included in the soft drink schema; that is, it contains real fruit juice. This level is known as the basic level (individual brand or product). In this level "Slice" has some of the product attributes of its superordinate level (all soft drinks) but it has one attribute that is different, that is real juice (Refer to Diagram 1). For the present study, the super ordinate level is the "general food category," where some of the product attributes are fresh, nutritious, unprocessed and not packaged whereas the basic level is the various processed food categories, whose attributes are contains preservatives or additives, nutritious and is packaged. The main structural difference is that the general food category is fresh rather than packaged and the basic product category

is not packaged.

There can be congruity or incongruity between a product and its associated product category schema. It may lie on a continuum somewhere between a perfect match or perfect mismatch (Meyers-Levy and Tybout 1989). Schema congruity may be defined as the difference in consumer evaluation between the superordinate level and the basic level. Schema incongruity is brought about by the difference in evaluation of the general food category and the processed food category. If there is a complete mismatch, then there is incongruity and if there is a complete match, then there is congruity whereas if the difference lies in-between ie. between the superordinate level (general food) and the basic level (processed food) then the product is moderately incongruent. For our study processed food belongs to the basic level and general food belongs to the superordinate level. As per the explanation given above processed food is considered moderately incongruent product, because even though it differs from the general food category, the difference is not extremely congruent or incongruent.

Based on this classification we move on to Mandler's (1982) "Schema Congruency Effect" which states that a moderately incongruent product (MIP) leads to higher levels of arousal which lead to higher

elaboration than a congruent or extremely incongruent stimuli. Mandler (1982) theorized that the rationale for a positive evaluation of a moderately incongruent object is based on arousal leading to higher cognitive elaboration.

Sometimes evaluations of products are based not on the absolute levels or values of product attributes but, rather, on the discrepancy between product attributes and consumers' expectations of the type of product (Cambell and Goodstein, 2001). According to Mandler, a congruent stimulus results in a mild positive evaluation based on familiarity, as it is not arousing. However, a moderately incongruent product is believed to heighten cognitive elaboration, which leads to the resolution of the incongruity and enjoyment of the product novelty. In other words, consumers enjoy the stimulation of figuring out the novel product and thus evaluate the novel product as more positive (attitude) than one that is typical (Cambell and Goodstein, 2001).

While Mandler's theory has been extended to predict consumers' product evaluations under some conditions, there are some variables that moderate the relationship between the moderately incongruity product and the evaluations. These are boundary conditions, which have been studied. A recent study by

Peracchio and Tybout (1996) demonstrated that prior product knowledge moderates consumers' preference for moderately incongruent options; the moderate incongruity effect does not occur for people with high product knowledge.

Further, a 2001 study done by Cambell and Goodstein considers perceived risk as an important situational factor that moderates the relationship between product congruency and evaluations. They found that in conditions of high-perceived risk the moderate incongruity effect is reversed, that is, the congruent (general food) is preferred over the moderately incongruent product (processed food). This paper is based on Cambell and Goodstein, 2001 model where perceived risk reverses the moderate incongruity effect.

For the study, a model is developed by modifying Cambel and Goodstein's, 2001 "Moderate Incongruity Effect" to include important cross cultural influences on attitudes and purchase decisions among Indian consumers. Due to the collective orientation of Indian culture, the influence of reference groups (people who are important to them) in consumer decision making, and product familiarity, as a moderator in new product purchases, were added (Refer to Figure 1).

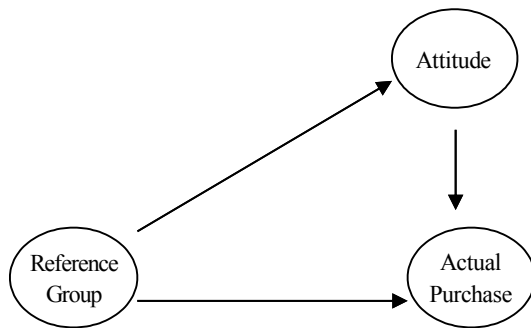


Figure 1. Conceptual Model

## FAMILIARITY AND EVALUATIONS

### Familiarity and attitude

Familiarity can be defined in terms of knowledge about which features are important in selecting a brand of the product. There are two ways of measuring familiarity:

- a) how much a person knows about the product and
- b) how much a person thinks s/he knows about the product (Lessig and Park, 1981).

In another study by Taylor and Rao (1982) it was found that differing levels of brand and store familiarity give rise to differing levels of perceived risk. Specifically, it was found that consumers perceive less risk and are more confident when confronted with the purchase of a

well-known brand from a less-known store than when they are confronted with a less-known brand from a well-known store.

According to Bornstein (1989), found that the familiar is preferred to the unknown, because more risk is involved in ventures with the unknown. Further, a high level of familiarity provides the customer with a different frame of reference for evaluations compared to a low level of familiarity. The more familiar frame of reference will lead to more positive evaluations.

The “exposure effect” highlights the fact that when objects are shown to individuals on repeated occasions the mere exposure is capable of making the individual’s attitude toward these objects more positive (Zajonc and Markus, 1982). Zajonc (1968) reported that mere exposure of the individual to a stimulus object enhances his/her attitude towards it.

Similarly, Heath (1990) observed that as familiarity of a stimuli increases peoples likeness for that stimuli also increases. It has been recognized that the exposure effect is a basic process in preference and attitude formation and change (Zajonc and Markus, 1982).

Further, the “affect referral effect” states the more familiar the consumer is with the product familiarity the more likely a favorable attitude about the product will

be recollected (Wright, 1975).

From these studies, one can infer that differencing levels of familiarity will affect the relationship of reference groups to attitude and actual purchase differently. Therefore for this study, more familiar or less familiar attitudes with food categories are the moderator.

## REFERENCE GROUP AND EVALUATIONS

### *Evaluations of products*

Consumers make their purchase decisions on the basis of their evaluation of, and knowledge about, product attributes (Jamal 2001). In the study by Cambell and Goodstein (2001), evaluation of moderately incongruent products was tested using purchase intention as an antecedent of evaluation. It was found that the higher the purchase intention, the more favorable the evaluation and visa versa. In our study, we look at how a favorable product attitude influences purchase.

### Reference group and attitudes

Hyman (1942) operationalized the term

“reference group”. Park and Lessig (1977) extended the work of Deutsch and Gerard (1955) and Kelman (1961) and defined reference group as an actual or imaginary individual or group, which has significant influence upon an individual’s evaluation, aspirations or behavior. Product attitude is defined as a predisposition to respond to a particular product in a favorable or unfavorable manner (Kim 1995).

For this study, reference group approval or motivation to comply, that is belief that most people who are important to the individual think s/he should perform that behavior (Fishbein and Ajzen, 1975, p 301) is used as a proxy measure for perceived risk.

According to Hofstede’s Value Survey Module (VSM), national culture differs on four different dimensions. The dimensions are individualism versus collectivism; (large or small) power distance; uncertainty avoidance; (strong or weak) and masculinity versus femininity (Hofstede, 1983).

In an individualistic society, the social network of people is structured such that people are supposed to take care of themselves and of their immediate family. Whereas collectivism is characterized by a tight social framework in which people distinguish between in-groups and out-groups. They expect their in-group,

that is, joint family members, place of work, to look after them in times of need, and in exchange they feel that they owe absolute loyalty to them.

The dimension of power distance, indicates, the extent to which the a society accepts that power in institutions and organizations is distributed unequally. According to the VSM, India's index scores were in the middle for the individualism /collectivism dimension, and the scores for power distance are high for India.

In a culture where the opinions of significant others is important and the opinion of the eldest in the family is important before decisions are made. In such a culture, the influence and approval of the reference group is important and there will be a strong social risk associated with buying a new product if the reference group is perceived not to approve.

There is a body of social psychology literature on the experimental study of social influence. A number of experiments have demonstrated that with sufficient group pressure it is possible to influence what the individual believes he perceives. Although group influence in the consumer decision-making process is recognized, generally it is thought of as "pressures toward conformity".

From the consumer behavior perspective,

the products and brands that individuals select can be influenced by their reference groups (Bearden, Netemeyer and Teel 1989). Reference groups are seen as either comparative reference groups, which are used for self appraisal, or normative reference groups, which are groups used as a source of personal norms attitudes and values (Kelly 1947).

Family is a very important reference group in the Indian culture. The reference group exerts influence on the individuals' beliefs, attitudes and choices. From the above discussion it follows that for more familiar processed food categories, the approval of reference group will have a stronger affect on consumer attitude than the approval of reference group for less familiar processed food categories.

**HI: Reference group approval will have a stronger positive affect on consumers' product attitudes of more familiar processed food than of less familiar processed food.**

#### Reference group and actual purchase

Venkatesan (1966) studied the influence of group pressure and the effects of choice restriction on the consumer decision-making process. He found that



individuals tend to conform to the group norm and accept information provided by their peer groups on quality, style and other product attributes. Thus, individuals appear to act in a manner that is consistent with the social group with which they identify.

Advertising to persuade consumers to purchase products and brands have extensively used reference group concepts. They have done so by portraying products being consumed in socially attractive situations and using attractive people and getting prominent endorsements for their products. This suggests that reference groups have the ability to shape behavior, influence the adoption of certain lifestyles, influence self-concept and contribute to the formation of values and attitudes (Bearden and Etzel, 1982).

Further, from marketing and consumer behavior perspectives, the influence of reference groups on individual behavior is often manifested in the types of products and brands purchased. From this it follows that for more familiar processed food, the approval of reference group will have a stronger affect on consumers' actual purchase than the approval of reference group for less familiar processed food.

**H2: Reference group approval will have a stronger positive affect on consumers'**

**purchase of more familiar processed food than of less familiar processed food.**

### Product Attitude and Actual Purchase

Intention to buy a brand is affected by attitude toward the brand Laroche and Brisoux (1989) found that intention to buy a brand is positively affected by a consumer's attitude toward that brand. Further, attitude toward a specific brand is related to the intention to buy toward the same brand (Lacroche and Sldokerski 1994). According to Kim (1999), product quality and other evaluations significantly affect product attitude, and product attitudes also affect purchase intention. Also, several studies have confirmed these relationships (Cho, 2004; Jang, 2006; Park and Kim, 2007)

From this it follows that for more familiar processed food attitudes will have a stronger positive affect on consumers' actual purchase than of a less familiar processed food.

**H3: Product attitude will have a stronger positive affect on consumers' actual purchase of more familiar processed food than of less familiar processed food.**

## METHODOLOGY

### Survey Instrument

Focus group interviews of Indian consumers were conducted prior to developing the empirical survey instrument study. The focus groups assessed the appropriateness of consumer attributes of food products and associated survey items under consideration. Through the focus group interviews, six processed food categories were identified that were relevant to Indian consumers: meat, fruits and vegetables, dairy products, soft drinks, snacks and cereal, and baked products.

Based on these six processed food categories, six versions (processed/packaged meat, processed/packaged fruit and vegetables, processed/packaged dairy products, soft drink/soda, snack/cereals and baked products) of survey questionnaires were developed. To equally distribute questionnaire in each city or town, the six version of the questionnaire were systematically rotated. However, when the respondent was a vegetarian, the meat version of questionnaire was changed with the different version.

In the questionnaire, total thirty-six questionnaires were asked regarding consumers' attitude such as preference,

perception, familiarity, actual purchase ... etc about processed food. The focus of this paper is on familiarity, approval of reference group, attitude and actual purchase. Familiarity was measured on 5-point Likert scales with "Very Unfamiliar" =1 and "Very Familiar" =5 by asking subjects to indicate "How familiar are you with processed (packaged) \_\_\_\_\_ (product)?" Two groups were developed based upon an analysis of familiarity scores, subjects indicating 5 were classified as the more familiar group (N = 170), and those indicating below 5 (N = 137) were classified as the less familiar group because the score of familiarity was high (mean score of familiarity = 4.7).

Approval of Reference Group was assessed by asking, "Most people who are important to me would think I should buy processed (packaged) \_\_\_\_\_(product)" (Ref. 1) and "Most people who are important to me would think that it is good for me to buy processed (packaged) \_\_\_\_\_(product)"(Ref. 2) (Anchors were Strongly Disagree= 1 to Strongly Agree= 5). Attitude was measured on a 5-point Likert scale with "Very Bad" =1 to "Very Good" =5 by asking "What is your general impression of processed (packaged) \_\_\_\_\_(product)?"

Finally, actual purchase was measured

by asking subjects to indicate “How many times did you buy processed (packaged) meat within the last month \_\_\_\_.”

### Data Collection

The sample in the current study consisted of 307 consumers who resided in ten economically and socially diverse cities and towns in India. The towns and cities included: Delhi, New Delhi, Hisar, Ludhiana, Himchal Pradesh, Haryana, West Bangal, Jammu, Kashmir, and Rajasthan.

A self-report survey data collection method was used. Trained research assistants from three major universities in India administered questionnaires between November 1999 and February 2000. A market intercept method was employed to collect data from randomly selected Indian consumers. Specifically, two different data collection methods were used due to the different market and living situations in rural and urban India. First, a market intercept method was used in urban areas. Data collection assistants were positioned at specific locations in the market place, and approached every 3rd person to request their participation in the study. For those agreeing to participate, an explanation and survey were presented. Once the survey was completed, respondents returned the form to the data

collector. Because there is no central marketplace in rural areas, data collection assistants visited every 3rd dwelling to ask the resident to participate in the study. In these areas, data collection assistants dropped off the questionnaire with an explanatory letter, and picked up the completed questionnaires. In consumer questionnaires, the six different versions of the questionnaire were systematically rotated to assure an equal distribution of survey in each city or town.

### Sample Characteristics

The consumer sample consisted of three hundred and seven respondents. The number of respondents for each category of processed food is shown in table 1:

Table I

Instrument	Sample Size
Processed/packaged meat	55
Processed/packaged fruit and vegetable	51
Processed/packaged dairy products	50
Soft drinks/soda	49
Snack/cereals	51
Baked products	51

For the purpose of this study the above data were pooled and treated as representing the moderately incongruent product as all these categories fall into

## Appendix A: Consumer Sample Characteristics

		Frequency	Valid N	Percent (%)
Age	-20	21	301	7
	21-30	86		25.5
	31-40	84		28
	41-50	62		20.6
	51-60	33		10.9
	61-	15		5
Gender	Male	140	306	45.8
	Female	165		53.9
Marital Status	Single	86	286	31.1
	Married	200		69.9
Education	Below high school	2	300	0.7
	High school degree	21		7
	Some university/no degree	22		7.3
	Bachelor's degree	126		42
	Master's degree or higher	128		42.7
	Other	1		0.3
Occupation	Students	49	301	16.3
	Housewife	54		17.9
	Specialist/freelancers	66		21.9
	Technical employers	56		18.6
	Manual employers	12		4
	Entrepreneures	37		12.3
	Other	27		8.8
Income	Less than 100,000 RS	14	297	4.7
	100,000 less than 200,000 RS	82		27.6
	200,000-less than 300,000 RS	123		41.5
	300,000-less than 400,000 RS	56		23.9
	400,000 RS and more	22		7.4
Residence	Delhi or New Delhi	74	305	24.3
	Hisar	25		8.2
	Ludiana	46		15.1
	Himachal Pradesh	28		9.2
	Haryana	30		9.8
	West Bengal	42		13.8
	Jammu and Kashmir	30		9.8
	Rajasthan	30		9.8

the processed food basic level. The consumer sample consisted of 56.5 % in the age group of 21-40. Nearly seventy

percent of the sample was married and approximately 85 percent of the population had a bachelor's or a master's

degree. Approximately forty two percent of the sample's annual income is between 200,000 less than 300,000 Rs. (approximately \$ 4000-6000). The average age of the children was 12.6 years and the average age of the adults was 40.47 years of age. For consumer sample characteristics see Appendix A.

## RESULTS

### Data analysis

To test the hypotheses, a structural equation model (SEM) was also used. SEM is advanced multivariate technique which combines aspects of multiple regression and confirmatory factor analysis to estimated a series of interrelated relationships at the same time. The main advantages of SEM are the ability to control for measurement error, improving experimental research, enhancing testing of

theoretical structures, the ability to link micro and macro perspectives, and better assessment of measures (Mackenzie 2001).

In a conceptual model, reference group was used as exogenous variable and attitude and actual purchase were used as endogenous variables. And then the conceptual model was tested in more and less familiar groups separately using Amos 5.0. The covariance matrices are shown in Tables 1 and 2. The theoretical models in Figure 1 and 2 show standardized parameter estimates. The structural parameters and t-values for the two models are shown in Tables 3 and 4. Model fit statistics indicate a good model fit (more familiar group:  $\chi^2 = 0.375$ ,  $df = 1$ ,  $p=.539$ ; less familiar group:  $\chi^2 = 0.682$ ,  $df = 1$ ,  $p=.409$ ) and other statistics (more familiar group: GFI = .999, AGFI= .989, CFI = 1.000, RMSEA = .000; less familiar group: GFI = .998, AGFI= .975, CFI = 1.00, RMSEA = .000) indicate that the models also had a good fit to the data.

Table 1 Correlations of the variables

More familiar group (N=170)

	Ref1	Ref2	Attitude	Actual Purchase
Reference 1	1			
Reference 2	.906**	1		
Attitude	.561**	.613**	1	
Actual purchase	.499**	.525**	.527**	1

\*\*  $p < .01$

Table 2

Less familiar group (N=137)

	Ref1	Ref2	Attitude	Actual Purchase
Reference 1	1			
Reference 2	.837**	1		
Attitude	.267**	.244**	1	
Actual purchase	.311**	.235**	.322**	1

\*\* p < .01

Table 3

More Familiar Group

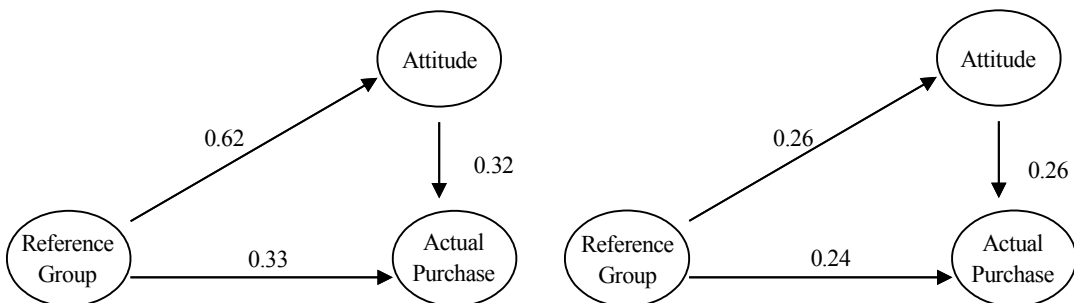
	Unstandardized	Standardized	t-Value
Reference → Refer 1	0.889	0.917	18.664
Reference → Refer 2	1.000	0.988	
Reference → Attitude	0.387	0.619	9.467
Reference → Actual Purchase	2.577	0.335	4.046
Attitude → Actual Purchase	3.933	0.320	3.972

Table 4

Low Familiar Group

	Unstandardized	Standardized	t-Value
Reference → Refer 1	1.265	1.012	6.217
Reference → Refer 2	1.000	0.827	
Reference → Attitude	0.227	0.263	3.158
Reference → Actual Purchase	1.928	0.240	2.939
Attitude → Actual Purchase	2.408	0.259	3.152

Figure 2. Model Depicting More Familiar Product Figure 3. Model Depicting Less Familiar product



### Testing conceptual model

H1 (Reference group approval will have a stronger positive affect on consumers' product attitudes of more familiar processed food than of less familiar processed food) is supported (more familiar group:  $\gamma = 0.62$ ,  $p < .05$  and less familiar group:  $\gamma = 0.26$ ,  $p < .05$ ).

H2 (Reference group approval will have a stronger positive affect on consumers' purchase of more familiar processed food than of less familiar processed food) is supported (more familiar group:  $\gamma = 0.33$ ,  $p < .05$  and less familiar group:  $\gamma = 0.24$ ,  $p < .05$ ).

H3: Product attitude will have a stronger positive affect on consumers' actual purchase of more familiar processed food than of less familiar processed food is supported (more familiar group:  $\beta = 0.32$ ,  $p < .05$  and less familiar group:  $\beta = 0.26$ ,  $p < .05$ ).

These results indicated that the paths in more familiar group (Reference  $\rightarrow$  Attitude, Reference  $\rightarrow$  Actual purchase, and Attitude  $\rightarrow$  Actual purchase) are stronger than less familiar group, thus, supporting the hypotheses.

## DISCUSSION

Empirical analysis was conducted through structural equation modeling (SEM). SEM results indicated that (1) approval of reference group positively influence consumers' product attitude in both group models, (2) approval of reference group positively influence consumers' actual purchase in both group models, and (3) attitude positively influence consumers' actual purchase in both group models.

Regarding group comparison, as we hypothesized, reference group approval has a stronger positive effect on consumers' attitudes and actual purchase behavior of more familiar processed foods than of less familiar processed food. In addition, attitudes have a stronger positive effect on consumers' actual purchase of more familiar than of less familiar processed foods. Therefore, it can be inferred that for a moderately incongruent product (processed food) reference group approval acts like a moderating variable, which reverses Mandlers' schema congruency effect (Cambell, Goodstein 2001).

The results depict that if there is high familiarity and high reference group approval then there is a more positive attitude towards processed food. But this

effect only occurs when both familiarity and reference group approval are present.

### Implications

The above findings have important implications for the understanding of consumer evaluations. The ability of perceived risk to increase preference for the norm should be of interest to consumer researchers for several reasons. As stated in Cambell and Goodstein (2001) article these results can be applied to the variety-seeking domain (Van Trijp, Hoyer, and Inman, 1996) although this hypothesis has not been tested.

The results of this study have important implications for the processed food industry in India. As processed food is still in its developmental stage, managers of companies have to concentrate on building awareness of the category. As we discussed, the role of family is critical in Indian culture. Information will be shared by the family member, and purchasing pattern will be also influenced by family decision. Thus, promotion strategies increasing 'word of mouth' such as providing free sample will be effective because product information will be disseminated rapidly over the family.

The study indicated familiarity with the category increases actual purchase. This finding is of prime importance to processed food product managers as both attitude and actual purchase are impacted by familiarity. Thus, global companies should focus on integrated marketing communication that can increase consumers' familiarities of products or brand name. The other interesting finding was that familiarity and high reference group approval together induce a more positive attitude towards processed foods.

Both of these findings indicate that managers should try to increase awareness of the category by increasing familiarity and increasing reference group approval and this should lead to a positive attitude towards the category. Familiarity can be improved either through promotions, sampling or in-store advertisements. As the in many cases shop keeper opinion matter, there should be incentives given to shopkeepers to promote the product.

### Limitations

The demographics were not in line with the population demographics in two aspects the income spread and household structure hence this might have influenced the generalisability of the results (Appendix a). Also, some constructs were



measured by single items that could cause validity problems.

### Future Research

Some areas of future research could be the effect of nuclear vs. extended families or rural versus urban on purchase and attitudes. The evaluations of the product could also differ by product categories, i.e., snacks, cold drinks, processed meats, it could also differ by age group. The increasing influence of children in decision making of processed food can also be studied. Some of the other variable that may have an impact on perceived risk of consumers is religion (Appendix b), high percentage of vegetarians in India and the difference in perception of imported vs. domestically produced products.

The motivation to buy each of these categories may differ as snacks could be positioned on the convenience platform whereas processed meat could be positioned on the hygiene and quality platform. These positioning strategies would cater to different target markets and also help in overcoming some of the barriers toward processed food.

(Submitted: Mar. 20, 2007)

(Publication Approval: June 30, 2007)

## References

- Bagozzi, R.P. (1982), "A field investigation of causal relations among cognitions, affect, intentions and behavior," *Journal of Marketing Research*, 19(November), 562-81.
- Bearden, W.O., Michael, J. Etzel (1982), "Reference Group Influence on Product and Brand Purchase Decisions," *Journal of Consumer Research*, 9 (September), 183-194.
- \_\_\_\_\_, William O., Richard G. Netemeyer, and Jesse E. Teel (1989), "Measurement of Consumer Susceptibility To Interpersonal Influence," *Journal of Consumer Research*, 15 (4), 473-482.
- Bornstein, R.F. (1989), "Exposure and affect: Overview and meta-analysis of research, 1968-1987," *Psychological Bulletin*, 106, 265-289.
- Burnkrant, Robert, E. and Page, Thomas, J. (1982), "An Examination of the Convergent, Discriminant and Predictive Validity of Fishbein's Behavioral Intention Model," *Journal of Marketing Research*, XIX (November), 550-561.
- Cambell, Margaret and Ronald C. Goodstein (2001), "The Moderating Effect of

- Perceived Risk on Consumers' Evaluations of Product Incongruity: Preference for the Norm," *Journal of Consumer Research*, 28 (December), 439-449.
- Cho, Chang. H (2004). "Effects of Banner Clicking and Attitude toward the Linked Target Ads on Brand-Attitude and Purchase Intention Changes," *Korean Academy of Marketing Science*, 14, 1-16.
- COMPSTRAT Country/ Sector analysis report (2001), *Overview of India's consumer goods sector: market potential and prospects for Italian goods*, New Delhi, India.
- Eagly, A.A. and Chaiken, S. (1993), "The Psychology of Attitudes," Harcourt Brace Jovanovich, Fort Worth, TX.
- Farley, J.U., Lehmann, D.R. and Ryan, M.J. (1981), "Generalizing from 'imperfect' Replication," *Journal of Business*, 54 (October), 597-610.
- Fiske, Susan T and Steven L. Neuberg (1990), "A Continuum of Impression Formation from Category-Based to Individuating Processes: Influences of Information and Motivation on Attention and Interpretation," in *Advances in Experimental Social Psychology*, Vol. 23, ed. Mark P. Zanna, San Diego, CA: Academic Press, 1-74.
- Goodstein, Ronald C. (1993), "Category-Based Applications and Extensions in Advertising: Motivating More Extensive Processing," *Journal of Consumer Research*, 20 (June), 87-99.
- Hofstede, Geert (1983), "The Cultural Relativity of Organizational Practices and Theories," *Journal of International Business Studies*, (Fall), 75-89.
- Hoover, Robert J., Robert T. Green, and Joel Saegert (1978), "A Cross-National Study of Perceived Risk," *Journal of Marketing*, July, 102-108.
- Howard, John, Buyer Behavior in marketing strategy, Prentice Hall, 1989
- Hyman, Hebert H. (1942), "The Psychology of Status," *Archives of Psychology*, 269, 94-102.
- India in Business. (2006). *Invest in India*. Retrieved January 7, 2006, from <http://www.indiainbusiness.nic.in>
- Jacoby, J. and Kaplan, L.B. (1972), "The components of perceived risk," in Venkatesan, M. (Ed.), *Third Annual Conference of the Association for Consumer Research*, Association for Consumer Research, College Park, MD, 382-93.
- Jang, Heong. Y (2006), "The Antecedents

- and Outcomes of Customer Satisfaction and the Formation Process of Brand Preference and Repurchase Intention in Service Industry,” *Journal of Korean Academy of Marketing Science*, 16, 61-86.
- Jamal, Ahmad (2001), “Consumers' product evaluation: A study of the primary evaluative criteria in the precious jewellery market in the UK,” *Journal of Consumer Behavior*, 1(2), 140-155.
- Kaplan, L.B., Jacoby, J. and Szybillo, G. (1974), “Components of perceived risk in product purchase: a cross-validation,” *Journal of Applied Psychology*, 59 (3), 287-91.
- Laroche, Michael, Chankon Kim and Lianxi Zhou (1996), “Brand familiarity and confidence as determinants of purchase intention: an empirical test in a multiple brand context,” *Journal of business research*, 37, 115-120
- Mackenzie, Scott B (2001), “Opportunities for improving consumer research through latent variable structural equation modeling”, *Journal of consumer research*, 28 (1). 159-166.
- Malhotra, Naresh K. and Daniel J. McCort (2001), “A cross-cultural comparison of behavioral intention models: Theoretical consideration and empirical investigation,” *International Marketing Review*, 18 (3), 235
- Mandler, George (1982), “The Structure of Value: Accounting for Taste,” in *Affect and Cognition: The Seventeenth Annual Carnegie Symposium on Cognition*, ed. Margaret S. Clark and Susan T. Fiske, Hillsdale, NJ: Erlbaum, 3-36.
- Mathur, Hemendra (2000), “Behaviour of Indian Urban Consumer in selecting a processed food brand,” <http://www.ksa-technopak.com/>
- Meyers-Levy, Joan and Alice M. Tybout (1989), “Schema Congruity as a Basis for Product Evaluation,” *Journal of Consumer Research*, 16 (June), 39-54.
- Mitra, Kaushik, Michelle C. Reiss, and Louis M. Capella (1999), “An Examination of Perceived Risk, Information Search and Behavioral Intentions in Search, Experience and Credence Services,” *The Journal of Services Marketing*, 13 (3), 208-228.
- Park, C. Whan and V. Lessig Parker (1981), “Familiarity and It's Impact on Decision Biases and Heuristics,” *Journal of Consumer Research*, 8

- (September), 223-230.
- Park, Yeung. K and Chang W Kim (2001), "A study of Factors Affecting PB (Private Brand) Products Preference," *Journal of Korean Academy of Marketing Science*, 9
- Payne, John W., James R. Bettman, and Eric J. Johnson (1993), *The Adaptive Decision Maker*, Cambridge: Cambridge University Press.
- Peracchio, Laura A. and Alice M. Tybout (1996), "The Moderating Role of Prior Knowledge in Schema-Based Product Evaluation," *Journal of Consumer Research*, 23 (December), 177-192.
- Promar international, The strategic consultant series (2000), *The sub-continent in transition: A strategic assessment of food, beverage and agribusiness opportunities in India to 2010*, New Delhi, India.
- Reserve Bank of India. (2005, June). *Reserve bank of India annual report 2004-2005*. Retrieved December 5, 2005, from [http://www.rbi.org.in/scripts/BS\\_EntireSearch.aspx?searchString=annual%20report](http://www.rbi.org.in/scripts/BS_EntireSearch.aspx?searchString=annual%20report)
- Rosch, Carolyn B. Mervis, Wayne D. Gray, David M. Johnson, and Penny Boyes-Braem (1976), "Basic Objects in Natural Categories," *Cognitive Psychology*, 8 (July), 382-439.
- Ryan, Michael J. (pre-1986), "Fishbein's Intentions Model: A Test of External and Pragmatic Validity," *Journal of Marketing*, 44(2), 82-96.
- \_\_\_\_\_, MJ. (1982), "Behavioral intention formation: the interdependency of attitudinal and social influence variables," *Journal of Consumer Research*, 9 (3), 263-78.
- Malhotra, N.K. and McCort, D. (2000), "An information processing model of cross-cultural consumer behavior," *Asian Journal of Marketing*
- Sujan, Mita and Alice M. Tybout (1988), "Applications and Extensions of Categorization Research in Consumer Behavior," *Advances in Consumer Research*, 15, 50-54.
- Taylor, R. L., and Robert, L. Rao (1982), "An Assessment of the Interaction Effects of Brand and Store Reputation on Consumer Perceived Risk and Confidence," *Arkon Business and Economic Review*, 13 (2), 43-48.
- U.S. & Foreign Commercial Service and U.S. Department of State. (2003). *Country commercial guide 2004*. Retrieved Oct 12, 2004, from <http://www.buyusa.com>

- Van Trijp, Hans C. M., Wayne D. Hoyer, and J. Jeffrey Inman (1996), "Why Switch? Product-Category Level Explanations for True Variety-Seeking Behavior," *Journal of Marketing Research*, 33 (August), 281-292.
- Venkatesan, M. (1966), "Experimental Study of Consumer Behavior Conformity and Independence," *Journal of Marketing Research*, (November), 384-387.
- Wright, Peter (1975), "Consumer Choice Strategies: Simplifying versus Optimizing," *Journal of Marketing Research*, 12, 60-67.
- Zajonc, R.B. (1968), "Attitudinal effects of mere exposure," *Journal of Personality and Social Psychology*, Monograph Supplement, 9, Part-2, 1-27.
- \_\_\_\_\_, and Markus, H. (1982), "Affect and Cognitive Factors in Preferences," *Journal of Consumer Research*, 9, 174-186.
- Zuckerman, Marvin (1991), "One Person's Stress Is Another Person's Pleasure," in *Stress and Emotion, Anxiety, Anger, and Curiosity*, Vol. 14, ed. Charles D. Spielberger and Irwin G Sarason, New York: Hemisphere, 31-45.

Appendix a: The table shows the number of children and adults in the house and their average ages.

Descriptive Statistics

	N	Mean
NUMBER OF CHILDREN IN HOUSEHOLD	235	1.2213
AGE OF FIRST CHILD IN HOUSEHOLD	169	11.8314
AGE OF SECOND CHILD IN HOUSEHOLD	77	13.3312
AGE OF THIRD CHILD IN HOUSEHOLD	17	12.6471
NUMBER OF ADULTS IN HOUSEHOLD	301	2.5847
AGE OF FIRST ADULT IN HOUSEHOLD	297	41.4680
AGE OF SECOND ADULT IN HOUSEHOLD	269	41.9257
AGE OF THIRD ADULT IN HOUSEHOLD	99	38.0505
Valid N (listwise)	10	

The household type definitions for the Indian population described as Single member nuclear pair, nuclear pair, nuclear, broken nuclear, supplemented nuclear, broken extended nuclear, supplemented broken nuclear, lineally extended, collaterally extended, others (1991, Census of India). For the purpose of this study nuclear families are grouped into one group - 41.57% and supplemented nuclear, broken extended nuclear, supplemented broken nuclear, lineally extended, collaterally extended are grouped into joint families - 45.81%. If this is compared to our sample population the maximum respondent had two adults in the house (53.1%) and had on an average of one child (29.3%) per household.

Population Demographics

Variables	Description	Percentage	Source
Age	6 and below	17.94	1991 census of India
	7 to 14	19.31	
	15-59	55.43	
	60 and above	6.76	
Gender	Male	51.9	EIU 1997
	Female	48.1	
Est. Households by annual income	less than 25,000	48.9	NCAER 1994-95
	25001-50000	30.6	
	50001-77000	11.9	
	77001-106000	5.0	
	> 106000	3.5	

Appendix b: PROMAR International

Food consumption habits of various Indian religious groups	
Religion	Eating Habits
Hinduism	All income groups in upper castes are strict vegetarians Lower castes are mostly non vegetarians Taboo on beef in all castes, as the cow is considered sacred
Islam	Non-vegetarian Taboo on pork Preference for Halal meat or slowly slaughtered meat
Christianity	Mostly non vegetarians with no taboos
Sikhism	Some sects are vegetarians and some are not
Buddhism	Mostly vegetarian
Jainism	Strict vegetarians