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CONSUMER PERCEPTION OF PRODUCT STIMULI

An Investigation into Indian Consumer Psychology and its Implications for New Product Development Process and Strategy

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ABSTRACT

Consumer perception of product value is central to all stages of the process of bringing products to markets, from design and manufacture to distribution and retail. As a result, product strategy needs to respect customer needs in order to achieve or retain competitive advantage in providing innovative and differentiated products. Increasingly however, markets are becoming saturated with homogenous product offerings with little differentiation in terms of technology or function. In many mature markets the process of consumer decision making is no longer governed by intrinsic factors such as pricing or performance; instead it is extrinsic factors such as brand, service and ethical behaviour that is becoming increasingly influential to consumer product choices.

As one of the most important emerging markets, India has attracted a large number of international brands. The dramatic changes within the economy have resulted in many new opportunities. There has been a significant rise in consumer disposable income, a development of modern urban lifestyles, and an increase in consumer awareness. These changes have affected buying behaviour and the consumer decision making process. However, relatively little is still known about how Indian consumers perceive products.

This paper examines the visual associations and the correlation between various product stimuli in the decision making process of Indian consumers from the perspective of consumer cognitive psychology and psychoanalysis.

Based on an original survey of 128 respondents, the paper postulates that the stimulus of 'visual aesthetics' can have a 'collective sub-conscious' psychological association and therefore can be analysed and considered within the chosen demographic group. The data also suggests that 'visual aesthetics' is now as equally important to the consumer decision making process in India as the traditional elements of price and functionality. However, the study suggests that intrinsic factors are still far more important than extrinsic ones in the Indian consumer decision making process.

The implications to design strategy and the new product development process in India are addressed. The study concludes that (i) a psychological approach towards understanding Indian consumer associations is both possible and can act as an important tool in determining consumer needs. (ii) 'Visual Aesthetics' is one of the key factors in the decision making process of the Indian consumer, however, 'extrinsic' factors are still not as significant a contributor as 'intrinsic' factors such as product visuals and features.

THE INDIAN CONSUMER MARKET

India is the second most populous country in the world with an estimated population of more than 1.2 billion (www1: prb.org, viewed on 06 Jan 2009) and it may, at current rates of growth, be the most populated country within a decade. India's market potential is greater than that of many countries in Western Europe with more middleclass consumers and increasing local purchasing power (Kulkarni, 1993). The middle class currently numbers some 50 million people, but by 2025 will have expanded dramatically to 583 million people—some 41 percent of the population (www2: mckinsey.com, viewed on 15 Jan 2009). Rapid socio-economic changes are taking place in India following the economic liberalization in the early 1990s and a recent economic expansion, the country is experiencing the creation of many new markets and a further expansion of existing ones. It is estimated that over 300 million people will advance from the category of rural poor to rural lower middle class between 2005 and 2025,

and that rural consumption levels will rise to the current urban levels by 2017 (www3: ibef.org, viewed on 06 Jan 2009).

One of the major trends in India has been in the growth of outsourced IT and business process outsourcing (BPO) services. In the past few years, there has been an increase in the number of skilled professionals in India employed by both local and foreign companies to service customers in the US and Europe in particular. As a result, a new Indian middle class has developed around the wealth that the IT and BPO industries have brought to the country and a new consumer base has developed. International companies are also expanding their operations in India to service this massive growth opportunity (www4: economywatch.com, viewed on 12 Dec 2008).

This has led to significant social changes within the Indian market which is beginning to adopt the Western model of consumer capitalism. The process of consumption and its related services has become the dominant social activity, even its philosophy. This has progressively led to the creation of its own characteristics and ideological framework; social ranks and exclusivities; membership of which and identification toward is gauged by the level of consumer participation. The Indian market has witnessed a lowering of the employed age group, an increase in disposable incomes, younger earners, nuclear families, a younger consumer market, and a shift in consumption choices and spending patterns.

At the same time, the Indian market today is saturated with imported products from many countries. This has increased competition and collaborative ventures, indigenous brands and international brands are all competing to exploit the growing market opportunities. This is exemplified by the Indian automobile industry, one of India's largest and fastest growing consumer sectors, the depth of penetration of global brands and the level of competition in the market is extremely high. Since the 1990s, around two dozen global auto brands have been established in India, including Hero-Honda Motors, Yamaha Motor India, Kinetic Engineering, competing with local brands such as TVS Motor and Bajaj Auto. (www5: articlesbase.com, viewed on 11 Jan 2009)

Consumer research, therefore, becomes a critical tool to businesses in assessing market requirements. The need to understand the behavioural patterns of buyers and consumers and their future trends has become paramount. This is particularly relevant to certain mature markets in India where manufacturers are seeking to differentiate themselves. There is still however, a need to improve current levels of understanding of consumer psychology and its use in relation to design in India.

UNDERSTANDING PRODUCT IMAGE

Product Image is a psychological concept which describes consumers' beliefs in relation to a particular product; it is the image of the product that the consumer carries in their mind. In current market scenarios, where product life cycles are continually reducing, it is imperative to maintain positive product associations in the minds of consumers if organisations are to maintain sales in the medium to long term and organisations also need to be aware that consumers associations will constantly develop as markets and cultures progress.

Wilkie (1994) indicates the fact that consumers translate stimulus inputs into mental identification, also known as perceptual categorisation. For consumers, this process happens extremely rapidly and is not usually perceived at a conscious level. A product with a strong image categorised in a consumer's long-term memory is likely to be purchased when a need for that product arises (Wilkie, 1994). A good product image may also increase the level of product equity (the value that consumers assign to a product above and beyond the functional characteristics of the product) (Hawkins *et al.*, 1998).

Visual Aesthetics in Product Image

In assessing the relative importance of visual aesthetics to product image it is difficult to extrapolate the effect from other important determinants of product image such as price and functionality. It is also important to recognise the role of visual aesthetics in conveying those elements to consumers.

Given that all stimuli are inputted primarily through the visual sense of the viewer, visual aesthetics (the tangible and visually perceivable attributes in the physical product, for example – colour, shape and size) is a critical determinant of consumer response and product success. Judgments are often made on the elegance, functionality and social significance of products based largely on visual information (Coates, 2003). These judgments relate to the perceived attributes of products and frequently centre on the satisfaction of consumer wants and desires, rather than their needs (Lewalski, 1998). Visual aesthetics impact primarily on consumers emotional responses to products, this can have a far greater effect on the 'response' or at least the 'Behavioural Intent' as opposed to 'rational' or analytical factors. It can lead to emotional attachments and desires that may outweigh so called 'logical' factors in the decision making process. There are many historical examples of product successes based on appeals to emotional values

Previous research indicates that the relationship between cognitive response and product appearance can be classified into 3 elements (Crilly et al., 2004)

- Aesthetic impression – This is the emotional response resulting from the aesthetic attractiveness of the product. Responses can be positive or negative
- Semantic interpretation – This can be defined as what the product intends to describe about its function, performance and qualities. This can also be a response to function which the form is trying to underline
- Symbolic association – This is the perception of social status and significance of the product, the design represents what the product says about its owner or user. The personal significance of the design may outweigh the social significance.

A review of existing literature reveals a strong relationship between the visual aesthetics of consumer products and the associated analysis of consumer psychology. It indicates that the design of product's visual appearance is more than just the individual expression of designers' creativity but reflects the entire amalgamation of collective sociological and psychological factors, activating a sub-conscious response by conforming to the prevailing psychological paradigms. Products use design to appeal to the emotional values associated with the product by the consumer or user.

During the last two decades, there has been a significant change in the views of manufacturers and marketers towards the importance of visual product design in India. Until the early 90's there was little consideration of visual aesthetics within Indian industry. The concentration was primarily toward function, cost, manufacture and price. This is evident from any study of the then available products in comparison to equivalent global offerings. The sector also suffered from low levels of investment and a 'copy cat' approach to design, however, there has been a revolution over the last decade, with increasing consumer demand due to better product knowledge and the global influx of products.

The importance of aesthetic appeal in industrial products has seen a huge increase in significance in almost all consumer market sectors and none more so than in the automobile industry. Indian designs are on a par with most global products and almost all automobile makers have invested in highly skilled in-house design teams. The number of external product design consultancies along with the number of product design teaching institutions have increased significantly: from only 2 premium institutions in the early nineties to 18 listed and recognized institutions.(www6: sourcingmag.com, viewed on 17 Jan 2009).

This transformation from factors such as functionality towards product visuals in Indian design reflects the changes in consumer perceptions of product image. The first aim of this paper is therefore, to demonstrate that the visual aesthetics of a product act as an expression of a sub-conscious collective psychological response to the prevalent socio-economic and cultural atmosphere, and is perceived as such by the target audience. The intention is to identify the psychological response to design in the actions of the chosen target audience.

Product Image in Consumer Decision Making

Product image exists within the minds of consumers and interacts with the cognitive process when consumers are presented with a number of stimuli, including visual aesthetics, functions, prices, brand names, service quality, and ethical associations.

Consumers take these stimuli into account when they make purchase decisions, however each may not be of equal weight. Many studies have attempted to differentiate between various factors in relation to the consequences of purchase decisions. For example, the 'Kano Model' classifies the perceived importance of product attributes into three distinct categories: delighters/exciters, satisfiers, and dissatisfies (Kahn, 2001). Product strategies have to react to the most relevant product stimuli during the process of consumption. When customers' appetite for usability and quality features are satisfied, further improvements in these attributes are ineffective; and features that were once delighters often become redundant or over-exposed in the market and so no longer generate excitement. In either case the company cannot rely on the same features to generate customer interest and competitive advantage. Studies understanding the psychology of consumers must address such issues and help organisations face them, even if this requires a paradigm shift of attitudes.

One of the greatest differences between mature and emerging consumer markets lies in the significance of the attributes in the overall decision making process of consumers. Many Western markets have evolved to accommodate and prioritise extrinsic factors (e.g. brand, service and ethical associations) over intrinsic factors (e.g. product visual aesthetics, usability, functionality, and price) in their preferences and the cognitive processes of the consumers have reciprocated accordingly. Many leading brands have adjusted

their strategies to emphasise corporate social responsibility by, for example, introducing 'fair trade' product lines to address the growing ethical needs from consumers.

However, it is questionable whether this is the case in emerging markets. For example, the motorcycle market in India has been rapidly saturated as shown by the increased competition level and diversity of choices. However, it is unclear whether consumers have altered the basis of their decision making. In fact, little is known about what factors Indian consumers consider as key in purchasing.

Therefore, the second aim of this study is to explore (i) whether 'visual Aesthetics' has reached the same level of importance as the recognised factors such as function, usability, and price; and (ii) whether, extrinsic stimuli (such as brand, service and ethical associations), has the same impact on consumer decision making as the intrinsic factors.

THEORETICAL ONTOLOGY

Cognitive Consumer Behaviour

The entire premise of the study of consumer behaviour and their decision making abilities is based on the study of 'Perception' or the 'Cognitive Process'. The process of perception is primarily a conscious act. The building blocks to this process are units known as 'Beliefs' or 'Schema'. 'Schema' originates from the Greek word 'skhēma' meaning 'plan'.

The stimuli are input through the sensory organs; 'exploration' can be elaborated as action or response towards the schemata leading to behaviour such as physical responses, psychological responses and in marketing terms buying, using or consumption. 'Schema' or 'Belief' can be explained as a framework of knowledge, episode of experiences, and network of expectations or anticipations.

Even if beliefs about one particular object or product are considered, the beliefs associated are too many to recognise, isolate and influence. Therefore, there has to be beliefs and 'beliefs'. This can be better explained by the concept of 'Salient' and 'latent' beliefs (Solomon, 2006). Salient beliefs are beliefs which are brought to the forefront of perception from a large amount of stored beliefs in memory.

Salient beliefs are the important beliefs, those which play the lead role in the decision making process. These are the beliefs that marketers have to recognise and influence, if not create.

Consumer Psychoanalysis

The initial premise is that consumers are rational subjects, capable of governing their thoughts and actions by the principles of reason when faced with purchase decisions. According to the view that became dominant with the enlightenment, human nature is divided into a rational part, the faculty of reason, and a non-rational part comprised emotions, appetites and desires (Damasio, 1994). These two parts are distinct and opposed. Reason is universal, objective and autonomous in its operation. The emotions and appetites, by contrast, are partial, particular and subjective. They are a force hostile to reason in human life (Damasio A., 1994; and Mann J., 2002).

There is a definite distinction between perceiving and reasoning, for it is to reasoning that one had to look for the correction of the senses and the establishment of the truth. This is in accordance with the rationality and irrationality discussions with a marked difference being suggested in the acts of perceiving and the act of reasoning, reasoning is the judging factor of the psychological process. This is a scientific expression as opposed to an artistic expression which is usually perceived and not reasoned. Perception, especially sensory perception and reasoning were established as antagonists, in need of each other but different from each other in principle. Yet, perception consists in fitting the stimulus material with templates of a relatively simple shape which corresponds with Jung's concept of 'Archetypes'.

Product design provides the consumer with this sense of metaphorical opposites, the sense of being a part of the collective infinite and also the individual identity. Thus, the primary motivation in human beings is intimacy and a connection to others, followed with the secondary motivation which is pleasure. ([www7:mythosandlogos.com](http://www7.mythosandlogos.com), viewed on 17 Nov 2008).

Symbolism in Product Image

The process of symbolic communication with its audience and the behavioural response towards these symbols happens at an unconscious level, this process is known as 'Symbolic interactionism'. The concept of symbolic interactionism is based on the premise that individuals interact with society at large and with reference groups, and this usually occurs at the sub conscious levels of the human psyche, in

determining the structure of the individual behaviour. Individuals are, therefore, assumed to relate to objects or events based on their symbolic meaning given by society (Mead and Morris, 1967).

Symbolic interactionism is manifested in consumer behaviour in the form of symbolic purchasing behaviour. This refers to buyers acting on the sub-conscious associations of the structure of the product, in its visual form, feel, brand image, and product image (Assael, 1987). Symbolic meanings of the products can be examined from different viewpoints:

- Society driven symbolic meanings: The symbolic meaning of the product including its intrinsic and extrinsic product attributes such as visual aesthetics, brand image, features etc. are shared and are defined by society.
- Symbolic individual associations: The visual aesthetics or the product itself acts as symbol of the individual user or consumer in the society.
- Symbolic transfusion: Products associated with positive or negative symbolisms tend to transfuse the same set of meanings to other products in similar categories or sets of products used by reference group members, leading to respective behavioural actions such as possession of the sets, or avoidance of the symbol transfused products.
- Psychoanalytical symbolism: Symbolism that operates at the sub-conscious level of the individual, beyond the conscious perception or reasoning usually having a catalytic effect on the choices made by the user.

Symbolic power, the capacity of symbolic associations of the human mind, often leads to mystical adorations of the visual aesthetics or the product itself. According to Sigmund Freud (Freud, 1965), phallic symbols are strong attractions in products in a male culture. The mental processes used in creating or associating sub-conscious psychological symbols are predominantly visual (Hodder, 1991). This justifies the need for designers to have both a psychoanalytic and symbolic perspective.

METHODOLOGY

Primary data has been generated by means of a questionnaire. A consumer group (male, age between 17 and 23 years) was selected for the study, as this group represents the most rapidly expanding sector in the Indian consumer market and more than 70% of India's population of 1.15 billion is under 35, with half of these below 25. (www8: washingtonpost.com, viewed on 21 Dec 2008). The Motorcycle has been selected as a product example, given its dominance as a mode of transport and its immense popularity and high product awareness amongst the chosen consumer group.

The questions relate to predominantly visual material and are designed to address two aims.

The first section of questions depicts respondents' visual preferences and psychological associations. It aims to demonstrate that visual aesthetics in products produce a sub-conscious collective psychological response to the prevailing socio-economic and cultural context. All questions are based on the pictures of the chosen three product models. Respondents were asked to select the most relevant associations for each of these pictures. The design of the option choices were based on the concept of psychological associations using metaphors, including fictional film characters, auto makers, music genres and sports.

The second section of questions was designed to explore the consumer responses towards product stimuli. It aims to explore whether the intangible stimuli have become equivalent to recognised factors such as function, usability, and price. The same sets of product pictures used in the first section of questions were shown again to the respondents. They were asked to select their favoured choice and when each of the following stimuli (functionality, price, brand, service and ethical associations) was present, they were asked to re-select their preference.

Questionnaires were sent to respondents via emails and 128 returned responses have been analysed.

FINDINGS

Key findings can be summarized into two areas addressing the two respective aims of this paper.

Visual Associations

The associative questions (in the survey) form the base of the psychological view towards the products visual aesthetics. The associations may not necessarily yield a single evident choice amongst the choices provided, however, the associative majority indicates the expected psychological trend of the group. This can be utilised to understand whether the sub-conscious psyche is indeed a collective phenomenon and if

it can be employed as a contributing factor towards product development and be complimentary to brand management.

The results (as shown in Table 1) reveal that the high percentages of the common preferred choices, by a majority of respondents, can be considered as an indication of the collective or group symbolic associations. The highest percentage of choice in comparison with lowest percentage for every question reveals that the selected group form similar symbolic associations to the visual stimulus, the majority of the respondents agree without conferring with the respective associations. The 4 chosen metaphors have been analysed below:

- Analysis of the fictional characters provided as choices reveals that most of the choices are highly masculine symbols and can be related to the ‘ideal self’ of the respondent, which is made up of young males. Of the 3 product images, all of them have a high percentage association to any one of the predominant male characters. The ‘ideal self’ is the assumed theme of these selections, a self that is perfect and impeccable. This popular choice in the segment indicates the collective association of the visual images to the male ‘ideal-self’.
- Automobiles and their brand names have always been associated with strong and descriptive symbolic meanings. This indicates that the product image as a visual stimulus aligns with the chosen brand and the results suggest that this affiliation has a symbolic and cognitive sense and has a close collective association.
- The symbolic understanding of the meanings associated with each of the genres of music is not completely necessary, relative to the statistics gathered. The percentages indicate a clear and marked choice of association for each stimulus. High percentages of the choices, i.62%, ii.46% and iii.54% indicate a collective symbolic association with these stimuli and that the genres of music as independent creative expressions do not affect the collective symbolic associations.
- Haggard and Williams (1992) contended that sport and leisure activities may have a perceived identity that influences the meanings consumers affix to them, to the extent that individuals may affirm their preferred leisure identity images by participating in the respective activities. However, these associations are not just based on simple individual participation in the chosen sport. The images have a definite trigger in the associations of the schemas and the symbolic interactionism proposes that individuals often organise their conduct in accord with their expectations of others and depending upon their familiarity with the situation. Consequently, definitions and meanings attached to situations often govern individual and group behaviour.

Table 1 Visual Association

Association with Fictional Film Characters (%)				
	Indiana Jones	Batman	James Bond	Lara croft
Product A	5	69	20	6
Product B	38	11	15	36
Product C	47	14	34	5
Association with Automobile Makers (%)				
	Ferrari	Jaguar	Ford	Rolls Royce
Product A	44	19	24	13
Product B	0	22	78	0
Product C	9	25	4	62
Association with Music Genres (%)				
	Heavy Metal	Pop	Western Classical	Classic Rock
Product A	62	2	0	36
Product B	3	46	21	6
Product C	28	2	16	54
Association with Sports (%)				
	Golf	Boxing	Tennis	Football
Product A	62	2	0	36
Product B	3	46	21	6
Product C	28	2	16	54



The data collated can be analysed to understand the similarities of the chosen group by their choice of associations.. The choices, of the four categories do not reveal as much in themselves as do the high percentages of the associations. The percentages in most of the choices indicate a sub-conscious agreement by the group and therefore can be considered as an ‘individual’ for research purposes.

The choices themselves indicate the collective association of the visual images to the male ‘ideal-self’. However, the percentages reveal that this ‘ideal-self’ is a shared symbolic perception, the group as an entity tends to associate with the visual stimulus. These psychological associations can be studied and results used in the design and development of the product, so that the product reflects those associations in its visual product image and thus achieve a greater potential of a latent symbolic relationship with its target consumer, thereby increasing its chances of commercial success.

Consumer Responses towards Stimuli

The second section of questions (in Table 2) elicits responses for the classification of cognitive schema or beliefs, according to the importance of its effect on consumer decision making behaviour. The expected findings of this question are:

- The importance of visual aesthetics in the initial decision making process, compared with other factors;
- Relative prioritisation between intrinsic and extrinsic factors leading to behavioural intent.

Table 2 Product Stimuli Questions

	Type of stimulus			
i	Visual	A	B	C
ii	Brand name	TRIUMPH	BMW	HONDA
iii	Service features	24 / 7 (ANYTIME)	Week days – 9.00am to 5.00pm	Joint venture service franchises; Timings vary depending on independent franchise
iv	Corporate issues	Recently voted No. 3 in ‘Top 100 Best and most generous employers’ poll.	Recently voted No. 62 in ‘Top 100 Best and most generous employers’ poll.	Not listed in the ‘Top 100 Best and most generous employers’ poll.

The respondents’ product choices towards both the intrinsic and extrinsic stimuli are shown in Table 3.

Analysing how respondents choices vary in relation to various stimuli reveals the importance of these stimuli in the decision making process. Table 4 considers the variances of consumer choices towards intrinsic stimuli, where the ‘visual stimulus’ is pitted against the functional features and price stimulus. 54% respondents changed their original product preferences (based on visual stimulus) when functionality information was given and 53% changed when price information was given. Only 35% respondents retained the same product preferences as their original choices over the two succeeding stimulus inputs. The results indicate, against the expected outcome, that the factors of features and pricing are still key decision directing factors, relative to visual aesthetics.

Table 3 Consumer Responses towards Product Stimuli

	Intrinsic Stimuli			Extrinsic Stimuli		
	Visual %	Functionality %	Price %	Brand %	Service %	Corporate Issues %
Product A	34	28	38	38	31	38
Product B	35	42	29	31	38	31
Product C	31	30	33	31	31	31

Table 4 Choice Variance for Intrinsic factors

	Respondents%
Changed product preference on introduction of functionality stimulus	54
Changed product preference choice on introduction of price stimulus	53
Maintained product preference regardless of succeeding stimulus inputs	35

Table 5 Choice Variance for Extrinsic factors

	Respondents %
Changed product preference on introduction of Brand name stimulus	6
Changed product preference choice on introduction of Service features stimulus	0
Changed product preference on introduction of Corporate issues stimulus	3
Maintained product preference regardless of succeeding stimulus inputs	91

However, an analysis of the choice variances for extrinsic factors reveals an opposite picture. Table 5 considers the variances of consumer choices towards extrinsic stimuli, where the factor of visual aesthetics is compared to the introduction of extrinsic stimuli such as brand name, services and corporate issues. Respectively 6%, 0% and 3% of respondents changed their product choices due to these extrinsic stimulus inputs. A majority of respondents (91%) retained their choices. The results indicate that these extrinsic stimuli are significant less important than the visual aesthetics of a product during the decision making process. However it should be noted that research questions that ask consumers to rationally consider their reactions to what are primarily emotional decisions, often contradict observed behaviour.

A comparison of the results in tables 4 and 5 also indicate the Indian consumer’s reaction towards the ‘Intrinsic’ vs. ‘Extrinsic’ factors of the product. If the intrinsic factors precede extrinsic ones, the choices of the respondents must vary more dramatically in their choices on introduction of intrinsic stimuli. The results confirm this assumption, indicating that although intrinsic factors are still evenly distributed in importance with respect to his/her decision making process, extrinsic factors have not yet achieved the same levels of significance. The study is of value therefore in revealing the relative levels of customer sophistication within India. The awareness and importance of these stimuli to consumers can then be applied to inform the NPD strategy and design process.

IMPLICATIONS FOR DESIGN PROCESS AND NPD STRATEGY

The typical Indian product design process may currently involve some rudimentary engagement with psychological studies to deduce some of the collective symbolic associations in their pre-conceptual design processes. Devices such as life style and story boards are developed to understand the target consumers, giving designers an idea of the social, cultural and economic direction of their consumers, however, the extensive use of psychological studies and its advantages have not yet been recognised. The same is reflected in the branding sector, though the use of consumer behavioural studies is relatively more prevalent. The importance of ‘Visual aesthetics’ has been recognised and is evident in the growing funding and focus on this aspect of Product design in almost all consumer product areas. However, the designs are still predominantly the creative judgment of the design team and in some cases, the design manager. There is agreement that current procedures are lacking in a scientific approach that psychological studies would bring to the process of design and development of products.

The current process of NPD involves initial market research and analysis, undertaken prior to the concept and design stages. The market research processes currently include methods such as sample surveys, fish bowl techniques, mood boards and theme boards. This gives designers basic information about the likes, dislikes, buying patterns, lifestyle brands and product choices of the target consumer. This leads to the

first level of design conceptualisation; these basic concepts are then subjected to various levels of filtering and detailing before a selection is made to progress to the next stage. The next process in the current NPD cycle begins with the re-conceptualisation of the product based on the basic concepts and refinements to them. The modified concepts are scrutinised by sample surveys and the selection of the concepts is made, usually by the design manager or the team. The chosen concept is converted to a design suitable for development by adding detail and body, the concept is then visually created to the requirements of the client and is prototyped for approval. The approved product then goes into manufacturing and production based on the demands of the order. The completed product is tested for market success and consumer reactions only after its introduction into the market and there is a high risk of product recalls and required modifications.

Table 6 How Psychological Research Informs the NPD Process

<i>NPD process</i>	<i>Function</i>	<i>Relevant to</i>	<i>Traditional Approaches</i>	<i>Proposed Approach</i>	<i>Advantages</i>
Market analysis	Define and analyse target consumers	Marketers and designers	Fish bowl , sample surveys	Psychological preference, symbolic research – What value?	Provides initial channelled perspective on the psychology and preferences
pre-conceptual design	Generate ideas	Designers	Mood board, theme boards, lifestyle boards	Psychological Associations – What types of associations? And why?	Can replace the current methods and be more precise in the understanding of the associations and features
Product Design	Finalize and create a complete design for development	Designers	DFMA, detailing, textures, modelling	Psychological Associations – What they associate with? And how?	Research can be used and included as features in the product depending on the nature of association.
re-conceptualization	Select design concepts and modify ideas	Designer managers	Surveys and other selection methods	Psychological Associations – How collective are these associations?	Can augment the selection methods.
Marketing	Sale to the target consumers	Marketers	Product placement, billboards, advertisements	Psychological preference – What product stimuli?	Can locate the key areas of focus for the marketer.

The suggested approach, elaborated in table 6, to this process provides more opportunities for the product to succeed and minimises the risk of adverse market reactions to the developed product. This is based on the proven hypothesis that the collective sub-conscious is a better and truer indicator of the possible consumer reaction towards the product than the predictions of individuals. Thus, the new approach advocates a psychological survey stage between the various stages of conceptualisation of the designs. Psychological understanding and research could also be introduced at the post-product design stage before the design goes into further development. The psychological reactions towards any new design could be beneficial in predicting its success before initialising final development.

The value of a psychological approach towards design is the natural step forward in cluttered markets such as the Indian consumer market as every minor advantage that can be harnessed could eventually determine the success or failure of the product or the brand. Understanding the consumer as a collective psychological group is essential in creating the visual individual identity of the product. The ‘ideal self’ is found to be a key psychological agent and the valid interpretation of this factor could impart an advantage to the manufacturer, significantly reducing the chances of a cognitive dissonance towards their product.

It should also be noted that crucial participants within the brand and product development process such as the ‘product design team’ and ‘brand managers’ are still based exclusively in the parent countries of the companies. Strategic decisions are taken without sufficient local consideration, input or understanding of the local market and consumer demands. This justifies the necessary requirement for extensive psychological studies of the target consumer groups to improve the chances of successful brand and product impact.

CONCLUSION

This study aims to examine the nature and extent of the relationship between the established areas of: NPD process, consumer behaviour, symbolic meanings and the psychoanalytical reactions to them: in addition to focusing on the role of 'visual aesthetics' in each of these areas and in the broader context of the Indian consumer market.

This paper concludes that the psychology of the consumer group in question has common symbolic associations towards product image, to which 'Visual Aesthetics' is a significant contributor. Visual aesthetics can therefore be utilised to reflect as well as represent the psychology of the defined group. Manufacturers can derive value from studying the group as an entity in terms of symbolic associations for their product and can use this research to design and develop the products to cater to these associations. Thereby increasing the potential of the product to affiliate sub consciously to the individual target consumer and thus succeed commercially.

The study indicates that the behavioural intent of the consumer towards 'Visual Aesthetics' in Product design is a 'collective symbolic' reaction; a psychological response in accordance with the socio-economic, cultural and demographical group the consumer belongs to and thus can be observed as a part of the group behaviour rather than those of an independent consumer.

Furthermore, the findings reveal that Indian consumers currently place greater importance on intrinsic factors in contrast to extrinsic factors in their decision making process. With this being the case, Visual Aesthetics still have a vital role in the process and thus manufacturers and marketers should concentrate on this as one of the potential elements that impact on product design along with other intrinsic factors such as features and functions. Whilst recognising that if the Indian market continues to follow the trend of more developed western markets, that 'extrinsic' features such as brand, service quality, ethical and corporate issues will potentially play more significant roles in the decision making process of Indian consumers in future and that this should direct NPD strategy for the next decade.

One of the values of the study, is the recognition of the fact that factors such as brand, ethical associations and service are not as important to the Indian consumer in comparison with factors such as pricing, features etc and this may be attributed to the relatively lesser levels of service and brand culture in Indian consumer market segment, relative to the more developed Western markets. This study does not examine this cause and effect factor extensively due to the constraints of the research, however, this paper indicates an opportunity for future research to analyze this finding.

Whilst, it is recognized that the study sample comprises of a highly segmented group, all males aged 17 – 23. The size of the sample was significant (128), and it is thought that the conclusions drawn would also have relevance to other Indian consumer segments.

REFERENCES

- Assael, H. (1987). *Consumer Behaviour and Marketing Action*. Boston, Mass: Kent Publishing.
- Coates, D. (2003). *Watches tell more than time: product design, information and the quest for elegance*. London: McGraw-Hill.
- Crilly, N., Moultrie, J., Clarkson, P. J. (2004). Seeing things: consumer response to the visual domain in product design, *Design Studies*. vol. 25, Is. 6.
- Damasio, Antonio R. (1994). *Descartes' Error: Emotion, Reason and the Human Brain*. New York: Grosset/Putnam.
- Freud, S. (1965). *The Standard Edition of the Complete Works of Sigmund Freud*. Strachey, J. (Ed., trans.). London: Hogarth Press.
- Haggard, L.M, & Williams, D.R (1992). Identity affirmation through leisure activities: Leisure symbols of self. *Journal of Leisure Research*, 24, 1-18.
- Hawkins, D. I., Best, R. J. and Coney, K. A. (1998). *Consumer Behaviour: Building Marketing Strategy*. 7th edn. New York: McGraw-Hill.
- Hodder, I. (1991). 'Interpretive Archaeology and its Role', *American Antiquity* 56: 7-18.
- Kahn, K.B. (2001). *Product planning essentials*. London: SAGE.
- Kulkarni, V.G. (1993). Marketing: the middle-class bulge. *Far Eastern Economic Revie*. 156 (2). p 44-46.
- Lewalski, Z.M. (1988). *Product esthetics: an interpretation for designers*, Design & Development. Carson City: Engineering Press.
- Mann, J. (2002). *The Influence of racial prejudice on sociometric choices and perception*. *Annual Review of Psychology*. Psychoanalysis of Ethnic Consumers and Similarities of Consumption. Available: <http://www.allbusiness.com/marketing-advertising/market-research-analysis-market/10585927-1.html>. Last accessed 16 Nov 2008
- Mead, G.H and Morris, C.W. (1967). *Mind, Self, and Society: From the Standpoint of a Social Behaviorist*. Chicago: University of Chicago Press.

- Solomon, M. (2006). *Consumer Behavior*. 7th edn. New Jersey: Prentice Hall.
- Wilkie, W. L. (1994). *Consumer Behaviour*. 3rd edn. New York: John Wiley & Sons.
- www1: *Data by Geography, India, Summary*. Available: http://www.prb.org/Datafinder/Geography/Summary.aspx?region=142®ion_type=2. Last accessed 06 Jan 2009.
- www2: The 'bird of gold': The rise of India's consumer market. Available: http://www.mckinsey.com/mgi/publications/india_consumer_market/. Last accessed 15 Jan 2009.
- www3: *Consumer Markets, Sustained Momentum*. Available: <http://www.ibef.org/economy/consumermarket.aspx>. Last accessed 06 Jan 2009.
- www4: *Globalization in India*. Available: <http://www.economywatch.com/economy-articles/globalization-in-india.html>. Last accessed 12 Dec 2008.
- www5: Wong, S.W . (2007). *Competition Landscape in India's Automotive and Auto Parts Sector*. Available: <http://www.articlesbase.com/automotive-articles/competition-landscape-in-indias-automotive-and-auto-parts-sector-229799.html>. Last accessed 11 Jan 2009.
- www6: *Automotive Design Offshoring to India*. Available: <http://www.sourcimgmag.com/content/c060927a.asp>. Last accessed 17 Jan 2009.
- www7: Robbins, B.D. (1999). *A Brief History of Psychanalytic Thought -- And Related Theories of Human Existence*. Available: <http://mythosandlogos.com/psychandbe.html>. Last accessed 17 Nov 2008.
- www8: Wax, E. (2008). *India's Young Spenders*. Available: <http://mythosandlogos.com/psychandbe.html><http://www.washingtonpost.com/wp-dyn/content/article/2008/06/23/AR2008062301974.html>. Last accessed 21 Dec 2008.