International Journal of Modern Agriculture, Volume 9, No.3, 2020
ISSN: 2305-7246

Conjoint Analysis of Strategic Preferences by Managers and Latent Class Regression Modeling of Firm Performance in Consumer Goods Industries in India

Vasudevan Sundararajan
Symbiosis School of Media and Communication, Bangalore,Symbiosis International (Deemed University), Pune, India
Email: vasudevan@ssmc.edu.in

Abstract

Conjoint analysis and brand-price-feature tradeoff analysis is traditionally used to study consumer preference structure for products and services. The same methodology can be used to study manager's (SBU Heads) trade-off analysis of strategic preferences. In this study, 13 sets of strategy variables are ranked by managers to show their preferences for different combinations of strategies by using a non-metric full profile based conjoint analysis model. Based on a componential segmentation of the strategic utilities obtained from conjoint analysis, a strategic typology was obtained. Later, a disaggregated latent class model was run using strategic clusters, competitive environmental clusters, intensity of rivalry, industry characteristics, type of industries, concentration, employee size and entry / exit conditions and their joint impact on market and financial performance variables. A complex combination of strategies was related to market and financial performance variables. Strategic firms consisting of global players with cost and quality leadership strategies, narrow urban focus operating in slow growth markets, moderately competitive environments with greater degrees of brand differentiation and favorable oligopoly coordination posted high market and financial performance. Firms using multiple sub-brands, challenger strategies with reactive behavior along with technology leadership and VFM pricing strategies operating in slow growth markets, moderately competitive environments were stuck in the middle firms in terms of market and financial performance. Firms following mega umbrella brand strategy with skimming prices, defensive and preemptive strategies operating in dynamic volatile markets posted high market performance and poor financial performance. Various recommendations are made based on the study results.

Keywords: conjoint analysis in strategy literature, firm performance, competitive environmental analysis, latent class modeling, firms strategies, industry characteristics

Introduction

Conjoint Analysis and Brand Price Feature Trade Off analysis have been used in the past literature to study consumer preference structures and behavior of consumers towards choice of a product / brand. (Green, Tull and Albaum 1996; Green and Srinivasan 1978). It is not only the domain of consumer behavior that can be studied with Conjoint Analysis, frequently managers trade-off one strategy versus another strategy to achieve financial performance of the SBU / Company, which can also be studied with the help of conjoint analysis. Porter (1980) alludes to the fact, that firms can either follow a differentiation strategy or a cost leadership strategy and what the manager faces is a choice of one strategy vis-à-vis others.

Porter admonishes that firms trying to do both differentiation and cost leadership will end up stuck in the middle. This study is a pioneering effort to understand, how managers trade off different strategies and how it can be shown that manager's preference for a particular strategy leads to different performance outcomes. For this purpose, we build a latent class regression model to study preferences of strategies chosen by managers and their concomitant effects on performance in India.

There are other areas in strategy literature where trade-off happens for multi-product companies. Like one has to choose between a differentiation strategy or a cost leadership strategy, one needs to look at brand architecture which integrates a company's multiple brands under one roof. To harness the power of brands, managers have to trade-off between an endorsed multi-brand architecture with focus specific to each and every industry or address multiple businesses with a monolithic (umbrella brand) brand architecture with synergies between brands. Here the SBU head has to make a tradeoff suitable to his company. In terms of competitive strategies, determinants of .posture are a very important tool for a firm (Porter 1985). Classification of competitive strategies looks at preemptive strategy, defensive strategy and offensive strategy (Porter 1985), while Miles and Snow's (1978) typology categorizes firm posture as: prospector, analyzer, defender and reactor (which translates into 4 factor levels- proactive, reactive, innovative and imitative strategies). So managers need to make a conscious trade-off as to which postures a company will adopt to succeed in the market. The entire marketing strategy literature has abundant examples, requiring trade-off decisions. For advertising planning, managers can use an informational commercial or a transformational/ emotional commercial (FCB grid and Rossiter Grid (See How advertising works? (Vakratsas and Ambler 1999)). Similarly, in service delivery / care dimensions, they can focus on customer care or dealer care, In terms of leverage, managers can leverage brand imageries or corporate imageries. Leadership strategies include- leadership status (with largest market share), a challenger (who is willing to take on the leader), followers and marginal players, corresponding to each type, strategies vary as well as posture determines strategies. Further, firms usually start with generic strategies and become big as a market leader to dictate strategies suitable to its size, rank and role. Also, strategies evolve over time. There is a time bound causal effect of strategies on leadership attainment status. However, our model is based on cross-sectional data and there are no longitudinal causal effects being observed. There are two types of leadership strategies that is studied in this research paper: (1) leader, challenger, follower and niche players based on size and posture, and (2) leadership strategy based on technology leadership (Sony), quality leadership (Toyota), image leadership (L'Oreal) and price leadership (Sanyo or Sharp). Thus in this research, various strategy sets relevant to consumer goods industries are studied. These strategies were sourced from marketing and strategy literature.

Context and motivation

India liberalized the economy in 1991 and opened up the market for healthy competition and for free trade without barriers. Before liberalizing the economy, there were a few firms in many of the consumer goods businesses with low / subdued levels of competition and huge monopolistic profits. Innovation and technology based competition was rare and even in

smaller cases; it was the joint venture partner's technology that paved the way for new products. With this altered economic conditions, firms realized that strategy making is about adapting to changes in the market conditions and changes in the market positions. New companies from Japan, Korea, Europe, China and American nationalities entered the Indian market with Global strategies. With foreign investments flowing into the country, it was expected that the economy will grow at a relatively rapid pace. The industrial growth rate is ticking at 7.5% (2008-12) and it is expected to touch 8.6% in 2017-2018). These changes leave the Indian companies at an important cross road. Should the Indian companies, cut price and occupy cost leadership positions and penetrate deep into semi-urban and rural markets? Or accelerate technology based competition by sourcing designs and innovations from abroad? Firms like Tata Motors, TVS Suzuki, Mahindra Auto and Hero Motors have stimulated R&D strategies and innovations to compete in the changed market conditions and have tried to be on par with MNCs and Global Players by adopting new types of strategies. Further, new MNC entrants have a large advertising budget, and this has put the Indian companies on the defence to spend on par with the MNCs with limited domestic resources.

The consumer is seeing a change in the market conditions as an impetus to a wide range of products for choice and technology based competition is driving variety and product line breadth of companies. New competitors are eating into the market shares of incumbents, which are inefficient in utilizing resources. Till now, incumbents were favoring dealer care and now customer care and need satisfaction (see Han, Kim and Srivastava 1998) for market orientation) are seen as the goals of modern day companies. The new range of strategies of incumbents and MNC rivals consists of both dealer care and customer care, leverage brand names and corporate reputation, move from a single umbrella brand to multiple brands and sub-brands, judiciously select niche markets, address rapidly growing urban markets while incumbents move into upcountry markets with lower prices. Further, the incumbents are utilizing cost based leadership strategies purposefully while maintaining high degrees of quality. The formulation of strategies and the need for increasing marketing productivity of resources spent, has led to conscious decisions on strategy formulation. Since, a single firm cannot choose all strategies; they have to trade off some strategies vis-à-vis others. This paper is aimed at to finding out how different companies including both incumbents and new entrants trade off strategies in India under MNC competition? And its impact on the financial and market performances of these firms.

Trade off of Strategic choices by managers has not been investigated in the literature and according to Porter (1980; 1985): Firms choosing generic strategies can adopt one of the three strategies namely: differentiation, cost leadership or niche strategy and they cannot concurrently choose more than one dominant strategy for the same market. Firms choosing incongruent and multiple but conflicting sets of strategies, may end up stuck in the middle. Other than Porter (1980; Miles and Snow 1978; Miles, Snow, Meyer and Coleman 1977; Kotler 1996) and many others have expounded strategy sets about firm performance and this study will analyze 13 such sets of strategies developed in the marketing literature, to find out the managerial preferences and consequences, in terms of market and financial performance outcomes of these firms in India. Despite, Porter (1980) addressing a possible trade off

amongst different strategies, there is not a single study describing strategic preferences and choices amongst managers. Similarly, Miles and Snow (1978) developed typologies amongst firms based on product strategies such as: Defenders, Analyzers, Prospectors and Reactors. Miles and Snow (1978) observed that firms pursuing more than one posture end up performing poorly.

The three types of strategies advocated by Porter (1980) are not the only set of strategic variables available to a manager or SBU head. There are a multitude of strategies followed by different people in different departments of a firm or SBU. For example: advertising manager is interested in delivering emotional or rational messages to end consumers, brand manager is deciding whether to build an umbrella brand or multiple brands for different product markets, distribution manager is deciding what kind of channel based strategy to execute – should it be push or pull strategy, product manager is looking at filling voids in the perceptual space of consumers to float new products, product line extensions, and product assortment strategies, R & D department is developing new products, new applications, new process improvements and new technologies etc. Thus, there are a multitude of strategies pursued by different people in the firm. So, we need to study all the possible types of strategies adopted by the managers. Hence, this study is a pioneering effort to do the same. The research is conducted at the SBU level and we will not study diversification strategies, integration strategies and corporate conglomerate strategies. Since, we already have 13 sets of strategies, leading to 32 full profile cards in the conjoint analysis; it would become unwieldy by including corporate strategies which will increase the data collection time with managers and vitiate the quality of the data collected. We are studying the impact of 13 sets of strategies on market performance variables like (market share, sales growth, segment share) and financial performance (ROI, ROS, ROE, EPS). We are developing hypotheses for the individual impact of each strategy set on both the performance variables (Market and financial performances), However, the final set of strategic clusters, we obtain from cluster analysis of conjoint based utilities (strategic utilities), is a combination of multitude of strategies obtained empirically. Hence, the performance implications will be studied at the level of composite factors / clusters and not at the individual strategy sets levels. The performance hypotheses have been given for the sake of completeness of the study, and when combined how they evolve and how the performances are impacted by the combination of strategies will be studied empirically. The end outcome of the empirical study is a set of intended and realized strategies affecting performance of firms at the SBU level in India. We have chosen latent class modeling technique because we need to disaggregate the firms to study performance differences of a cluster of firms (capturing heterogeneity) with different profit implications and further, latent class modeling allows incorporation of categorical variables (environment cluster membership, strategic utility cluster membership, performance cluster membership) along with a coterie of quantitative covariates / variables. The following methodologies have been used to develop the latent class model – non-metric conjoint analysis of strategic tradeoffs , cluster analysis of environmental variables, cluster analysis of performance variables and cluster analysis of strategic utilities through componential segmentation; to discriminate the performance characteristics relative to different levels of strategies, environmental variables, competitive intensity variables and a set of covariates like concentration, number of rivals in

the market, entry conditions, type of industry and firm size (based on number of employees) are used to complete the model specification,

Model development

The conjoint model developed here looks at preferences for various factor levels for different types of strategies by the managers; for each factor level under each strategy, part-worth or utilities are obtained based on the conjoint analysis, which are related to market and financial performances of the companies. We have past studies in strategic management literature relating different strategies to market and financial performances of companies. However, how preferences for different levels of strategies based on the utilities or part-worth influences performances of different companies are not known. For this purpose, we will briefly discuss a comprehensive model of firm performance developed by me and see how the present data can be fitted into a theoretical model for an empirical study like ours. There are no existing models of firm performance taking into account conjoint based strategic inputs and relate it to market and financial performances of companies. We will try to relate strategic preferences to market and financial performance based on a model adapted to this study based on the comprehensive performance model referred to above,

I have developed a comprehensive model of firm performance from the marketing discipline wherein strategy variables, market environmental variables, market structural variables, and competitive intensity variables determine market and financial performance of firms. The driving force of the model is the product-market factors and the market structural variables determining the strategic resource allocations by firms while Competitive intensity due to rivalry, affects firm size and financial performance, There are 3 perspectives in studying firm performance: (1) structural models of firm performance from industrial organization economics (Scherer 1980)) (2) strategic group theory from strategic management literature (Cool and Schendel 1987), and (3) strategy-performance models utilizing PIMS database (Buzzell, Gale and Sultan 1975). The comprehensive model developed here takes into account major variables from each discipline to develop the comprehensive model of performance. The above 3 different perspectives have failed to model competitive intensity variable explicitly. For all the 3 types of models, the inter-relationship amongst strategy variables, market share performance, and competitive intensity were not studied. To bridge these divergent orientations of the different disciplines, the comprehensive model of performance was advocated, to incorporate all the important variables of the 3 disciplines, explicitly capturing competition and market environmental forces, and account for size effects of firms on financial performance. In the model, strategy is decomposed into 2 parts: (1) a component representing the effect of strategy on financial performance mediated by market share (Size) and (2) a second component representing the impact of strategy variables on financial performance moderated by competitive intensity. The net effect is the sum of the market share and a strategic force on financial performance, wherein the direct effects is based on strategic forces and the countervailing effects is based on competitive intensity. Here, competitive intensity is a covariate for market share performance. The above two component summarization keeps the moderator effect on market share-financial performance and strategy- financial performance. Figure 1 provides the representation of the two

component model and the inter-relationships amongst the variables in the comprehensive model of performance. Since there is no theoretical formulation to study managerial preferences for strategies and how it affects market and financial performance, I have tweaked the above model a little bit to give a framework for this study. In this model, utilities of strategic preferences affect intensity of rivalry, market share and financial performance. As stated above, competitive intensity moderates the impact of strategic utilities (obtained based on conjoint analysis) on market performance and financial performance. Strategic utilities and firm size positively influence financial performance while environmental forces and competitive intensity variables counteracts this performance. Environmental variables and control variables like concentration, number of rivals, entry conditions and market growth are used to complete the specification of the model. The same model formulation is used here but with the difference that strategic variables are now replaced by strategic clusters based on componential segmentation of the conjoint output utilities. The model consists of 4 sets of variables: (1) strategy typology, (2) environmental variables, (3) firm size and (4) performance variables. The strategic typology causally affects the market and financial performances of firms. The environmental variables are cluster analyzed to obtain different types of competitive environments which along with competitive intensity affects market and financial performance. Firm size (employee numbers) is a covariate for competitive intensity. Control variables are used to complete the model specification. Control variables include: number of players, industry type to control for inter-industry differences, concentration, entry conditions and market growth variables act as covariates impinging on financial performance.

We will be using the latent class modeling to empirically verify the model.

Financial performance cluster membership = F (market / segment performance, competitive intensity, strategic typology, environmental variables typology, control variables like type of industry, entry conditions, employee based firm size, concentration, market growth rate and the number of rivals in the market).

Why latent class modeling was used in the study?: (1) usually typologies are used for getting different strategic groups in strategy literature. Especially, the strategy literature has abundant number of strategic typologies (Miles and Snow's typology 1978; Schendel 1985; Harrigan 1985; Venkatraman and Prescott 1990; Thiertart and Vivas 1984) (2) we have gathered all constructs as cluster groups or typologies and used them in the latent class model to capture 100 % information of the variables constituting the model. Suppose, we use factor analysis of the various dimensions in the performance model, we lose information of approximately 30 to 40 % information while doing factor analysis. Further, when factors are used in the regression models, many factors are not significant leading to further loss of information. Cluster memberships capture full information of the different variables. And (3) the Latent class model is versatile to allow any type of measurement- consisting of nominal variables coming from the typologies and quantitative variables, used to complete the specification of the model.

Objectives of the study

1. To understand how managers trade-off between one strategy vis-à-vis another strategy. This trade-off analysis will consist of 13 sets of strategies sourced from different management literature and theoretical frameworks (like Porter's Generic Strategies) and will analyze their preference process amongst managers in India both MNC companies and local Indian companies.

2. To understand the preference structure of managers for different types of strategies in consumer goods industries and relate them to financial and market performance. In the theoretical model, we have used market performance and financial performance variables together. In place of market size, we have used employee numbers as a substitute variable.

3. To understand the relative importance weights imparted to different strategies by different managers in different consumer goods industries, and product-markets and how that has yielded managers to achieve superior performance in the market.

4. To build a comprehensive model of firm performance incorporating strategic typology, market share, environmental groups and financial performance clusters. In this study, using conjoint analysis, we will extricate part-worths associated with different types of strategies and cluster them to get strategic typologies; Further. Using latent class analysis, we will try to relate those strategic clusters to market / financial performances of firms. This study goal is to show how preferences for a particular strategy yield firm's performance with a novel procedure latent class regression model.

5. To isolate the different types of competitive environments, and to study in detail how firms adapt to environmental changes with suitable strategies. For this purpose, cluster analysis will be used on environmental variables to get clusters of relevant environments in which strategies by different managers are analyzed.

The paper is organized as follows: First section will show the literature survey information relevant to the different types of strategy sets and their impact on market and financial performance of firms (at the SBU level). The literature review section summarizes the performance consequences of different strategy sets and specifies the direction of relationship between strategy and market / financial performance variables. This is followed by a description of the impact of covariates on performance variables in the latent class modeling. Section 2 describes the outcome results of the conjoint analysis, and strategy tradeoff model and describes the importance of different variables in different types of industries. It also shows the importance ascribed by managers for different strategy sets in descending order of importance peculiar to an industry and a firm. The third section describes the process of cluster analysis results and enables interpretation of the strategic utilities clusters, environmental clusters and performance clusters based on their analysis of centroids. This is followed by a discussion of the output from latent class modeling showing the strategy – performance relationship at the disaggregate level. Discussion of the results is followed by managerial conclusions along with limitations of the study.

Literature survey

The literature related to these 13 sets of strategies is a subject matter of many text books and it will not be elaborated here. The entire literature is summarized in the following tables where the strategy factor levels are given and their impact on market share performance and financial performance are also given.

Summary of different types of strategies and their impact on performance

Type of strategy	Category	Market performance (MS, sales growth, segment share)	Financial performance (routes to success)
Brand Strategy 1 (Aaker 1992; Kapferrer, 1992; and Hamel and Prahalad, 1996)	Umbrella mega brand strategy	High MS due to synergy, broad scope	Some profitable product lines. Some mixed product category performance due to asymmetric line extension performance
	Multiple sub-brand strategy	Moderate share in some product market segments	High or low performance depending on product market segments addressed
	Endorsed multi-brand strategy	High market / segment performance	Moderate performance due to high cost of promotions of individual brands
Brand Strategy 2, (Aaker 1992, 1985; Batra, Myer and Aaker 1996; Boulding and Staelin 1990)	Brand differentiation on intangible values	High MS, high segment share and good sales growth	Price premium and high profitability
	Product differentiation on tangible functional values (Garvin 1988)	Moderate market share in segments, good sales growth, high share in product line variety due to synergy and price perception	Value for money in functional and economy segments, moderate financial performance
Care dimension	Dealer care, channel push and build dealer brand	Large share due to blockading channel,	High shelf space coverage and

(Narver and Slater 1990; Han, Kim and Srivastava 1998)	equity	preemptive and defensive strategies – hold market share	visibility, cost differential, shared cost and high profitability
	Customer care, channel pull and build consumer brand equity	Large share due to consumer pull and branding	Price premium, consumer loyalty and high profitability
consumer bonding strategy (Batra, Meyers and Aaker 2003)	Emotional bonding	Large market share, defensive strategy, low consumer perception of product attributes and affinity to the brand based on brand attitudes and awareness.	High loyalty, price premium and high profitability
	Rational bonding	Price-performance comparison, moderate market share, good segment share due to product line pricing strategies and preemptive strategies	Value for money pricing, cost differential and moderate financial performance
Generic strategies (Porter 1980, 1985; Woo 1979)	Differentiation strategy	High market share, entry / mobility barriers for competitors, consumer loyalty and switching barriers	Price premium and high profitability
	Cost leadership	High market share in large segments, high sales growth in large segments	Cost differential due to economies of scale, experience advantages, synergy and good profitability
	Niche strategy	Low market share in whole market, large share in served market devoid of competition,	High price or cost leadership leading to high profitability due to reduced

		stable growth	rivalry
Leadership strategy 1 (Kotler and Armstrong 2006; Woo and Cooper 1981; Porter 1980)	Market leader	High market share in large segments, broad product line variety and differentiation strategy	High profitability due to price premium or cost differential and consumer loyalty
	Challenger	Moderate market share due to high cost of rivalry and taking head on competitors	Average profitability due to high cost of promotion, resource commitment on R & D and technology strategies to beat leader
	Follower	Moderate market share, steady sales growth, don't compete with the leader and the challengers	Price differential relative to market leader, moderate profitability
	Marginal player	Low market share, operate in select segments, devoid of competition	Profitable in secure niches or also ran in some cases.
Leadership strategy 2 (books on TQM), (Garvin 1988; Philip, Chang and Buzzell 1983))	Quality leader	High market share, switching barriers, consumer loyalty, price – quality perception, high segment performance and growth	Price premium and high profitability
	Global leader (Porter 1980, 1985; Kotabe, Srinivasan and Aulakh 2002)	High market share, shared costs, synergies in select regions, good product line variety	High profitability in some select regions or segments, asymmetric performance in certain countries
	Technology image leader (Sawhney 2006)	High market share in premium segments, snob value, large	Price premium in select upper income households and high

		consumer following	profitability
	Price warrior or price leader (Scherer 1980))	Large market share in economy segments Leader firm with large market share and stable market size, dictating pricing strategy in the market	Cost and price differential and moderate profitability Highly profitable, defensive and offensive strategies
Leverage strategy (Aaker 1992)	Brand name, brand image, brand personality	Segment specific high market share	Segment specific high profitability, high promotional expenditures, high or moderate financial performance
	Corporate name, corporate image, corporate personality	High multi-industry share due to synergy, shared costs, shared distribution advantages	High performance as well as asymmetric line extension performance.
Market penetration strategy – scope (Abel and Hammond 1979)	Urban focus	Large share amongst upwardly mobile consumers, high technology products to evolved consumer segments	High financial performance due to price premium, skimming pricing strategy
	Semi-urban focus	Moderate share in regional segments	Moderate financial performance
	Rural markets focus	Low market share in full market and high share in rural segments, high distribution cost, market penetration, slow growth	High cost of distribution, low price, acceptable quality and moderate technology products, low to moderate profitability
Posture (Porter 1985; Miles and	Defensive strategy	Protect large market share, slow growth, build entry and mobility barriers, use	Low short term profitability to protect high long term profitability,

Snow 1978)		capacity or low prices of some product lines to deter entry, entertain efficiency strategies	high efficiency, cost differential, differentiation barriers, high consumer loyalty and high profitability
	Offensive strategy	Challenger attack on leaders or regional players, moderate market share, trying to grow sales, good segment performance	High resource utilization , high cost of production and promotion, moderate to low financial position for targeted future profits, strategic self-cancellation of moves by rivals
Posture (continued from above)	Preemptive strategy (Porter 1980; Milgrom and Roberts 1986))	Protect large market share or segment share, build entry / mobility barriers, do broad product line extension or market segment expansion ahead of others, capacity building ahead of competitors, signaling tough predatory moves	High monopoly profits till competition catches up
	Proactive (Miles and Snow 1978)	Market scanning, environmental analysis, do market research activities, build large market share, good segment performance, broad product line	Blockading strategy high profitability till competition catches up
	Reactive (Miles and Snow 1978)	Challenger or follower strategy, moderate market share, moderate segment share and	Stuck in the middle financial performance

		sales growth	
	Innovative (Miles and Snow 1978)	Large market share of emerging segments, high share of new technology markets and sales growth in product market segments due to creative communication	Leadership, price premium and high profitability
	Imitative (Ethiraj and Zhu 2008)	Follower strategy, moderate or low market share or segment share	Stuck in the middle financial performance
Pricing strategy (Dean 1951; Kotler and Armstrong 2006)	Skimming	Low market share in new markets or segments or high market share in premium segments	Price premium, product demand inelastic and high profitability
	Value for money	Moderate market share performance, broad product line and high segment share in functional / variety markets	Cost differential, high shared economies of scale and moderate profitability
	Price penetration	Large market share in economy segments	Cost differential and moderate to high profitability
Promotion strategy (Blatterberg, Briesch and Fox 1995)	Consumer promotion	Consumer loyalty building through incentives to achieve large market share	Moderate financial performance due to reduced margins as an outcome of sales promotion. Deal prone consumers using SP
	Trade promotion	Hold to high market share with Large shelf space, blockading strategy, defensive or	High financial performance due to holding to large

		preemptive barrier building activities,	market share
Scope (Abel and Hammond 1979; Porter 1980)	Broad focus, mass market strategy	Large market share, large segment share, good sales growth	High profitability due to scale economies, synergy and experience advantages
	Narrow segment focus	Large market share in a specific market segment devoid of competition	Price premium and high profitability in specific segments with differentiation or cost leadership strategies

Impact of Covariates in Latent Class Modeling

Concentration: According to Scherer (1980), in highly concentrated industries, few firms realize large market shares and monopoly profits. As markets move from monopoly to oligopoly with moderate concentration, competitive intensity increases and profits and market shares come down. However, oligopoly firms over a period of time can anticipate competitor's strategic moves and lead to tacit collusion and high profitability. We propose an inverted concentration and profitability relationship curve such that at low levels of competition profits will be low and as concentration increases profits reach a maximum and after which it declines due to ruinous competition. (Szymanski, Bharadwaj and Varadarajan 1993).

Market growth rate: High growth markets attract a large number of rivals and hence market shares will depend on the number of players and growth can take rivalry out and make each player address the growth market and improve their market share. As a result, growth market leads to a positive market share and the number of rivals will reduce this opportunity. In growth markets, firms need to spend on high marketing costs, on raising productivity of marketing variables, on achieving experience and scale economies advantages, lowering direct costs incurred by growing firms and increasing profit margins and posting good financial performance (Szymanski, Bharadwaj and Varadarajan 1993; Buzzell and Gale 1987).

Other variables like entry, firm size and type of consumer goods industries: We are looking at performances of different groups of firms based on the type of industry they are in, such as – FMCG / CPG, (fast moving consumer goods or consumer packaged goods) durables, appliances, services and automotives. There could be inter-industry performance differences other than performance differences based on strategic factors. Further, we have used number of employees as a quantitative covariate as a proxy for firm size. We have also

used a qualitative variable capturing entry conditions of the market (Bain 1951), (see Green, Barclay and Ryans 1995) for impact of entry strategy on performance).

Performance variables; I used perceptual measures of performance based on rating scales to assess both market and financial performances. In India, there are vast differences in accounting methods and collecting reliable financial data is very difficult. Hence, we have used SBU head's rating of performance measures. Market performance is captured by market share, segment share and firm sales growth while financial performance is captured by ROI, ROS, ROE and EPS.

Environmental variables (See Slater and Narver 1994; Venkatraman and Prescott 1990) for impact of environment on performance): We collected intensity of rivalry in the market based on a 5 point scale and included 15 variables capturing environmental conditions like extent of market dynamism-volatile market, innovation based competition, price based competition, rapid growth in innovations and new products, fast cultural changes, technology based competition, market heterogeneity, degree of product differentiation etc. These 15 variables were cluster analyzed to get 3 environmental clusters which are used in the latent class model (See Competitive intensity on firm growth by Siah Hwee Ang 2008)

Data collection

A quantitative questionnaire was prepared based on managerial inputs and past research on strategies in the consumer goods industries in India. To purposively chosen companies from telephone directory, key managers in those companies were interviewed with the quantitative questionnaire. A few MBA students doing their summer projects were used to collect data based on a face to face interview with managers in 5 centers namely: Delhi, Chennai, Mumbai, Kolkata and Bangalore. A total sample size of 104 interviews was obtained in three months of the study. The target respondents were top level managers in important consumer product companies. There were some refusals (10 %) due to 32 full profile cards trade off analysis taking more than 30 minutes of time. The questionnaire consisted of three sections namely (1) Strategic choices in 32 full profile cards (2) environmental issues affecting strategy and (3) A battery of performance measures taken on perceptual measures of market and financial performance.

Design and Administration of Questionnaire

The first section of the questionnaire (section A) collected information pertaining to the study such as organizational demographics, the degree of competitive intensity in the industry, entry strategy, type of competition and four firm market concentration. This study is a cross sectional study of consumer goods companies in the 5 cities mentioned earlier. Section B contained 32 strategic combinations of cards generated using a full profile method (SPSS categories). The strategy sets were sourced from literature review. If Porter's generic strategy had 3 levels based on his theory, then we let three attribute levels corresponding to (mass differentiation, cost leadership and niche strategy). Similarly based on theoretical factors, attribute levels were chosen. The respondents were asked to rank the cards ranging from 1 to 32 in order of importance to the organization. The cards were first sorted into most preferred,

neutral to least preferred in 3 sets of combinations. The respondents then arranged the cards in descending order in each one of the pile based on preference and importance to that industry and company. Profile cards were always well shuffled each time when it was administrated to the respondents without order bias. The full profile cards identified the most desirable combinations of strategies. The different sets of strategies identified from the literature are: Leadership strategy, firm posture, product strategy, generic business strategy, scope, consumer bonding strategy, pricing strategies, branding strategies, number of brands strategy, leverage strategy, promotional strategy, market penetration strategy, dealer care strategy, customer care strategy and market coverage strategy. Each of the strategy set had 2 or 3 levels except for posture, which had 7 levels and leadership strategies which had four levels. For the variable posture, we had seven levels corresponding to 3 levels from Porter's theory (1985)- preemptive strategies, defensive strategies and Offensive strategies and four levels from Miles and Snow's typology(1978)-analyzer, prospector, defender and reactor. These 4 product strategies were reframed to 4 attribute levels corresponding to – innovative strategy, imitative strategy, proactive strategy and reactive strategy each corresponding to Miles and Snow' typology.. We didn't want to make posture a two set of variables because the number of full profile cards will increase and the interview time will go beyond 40 minutes. Too many cards will also lead to information overload for the respondents to answer the conjoint design. With more number of attributes, the number of full profile cards increases leading to time constraints for administering the questionnaire to be filled by the respondents. The attribute levels for each construct was designed based on the literature survey and concomitant theories. Lastly, leadership variables had 4 levels based on Kotler's and Armstrong's theory. One additional leadership construct had 4 variables, corresponding to quality leadership, technology leadership, global image leadership and price leadership. The attribute levels correspond to separate entities capturing the different levels of the strategy sourced from the literature review. Thus, our study contained 13 sets of strategies with each having different attribute levels. The cards were generated using ortho plan in SPSS program, which contains all the possible combinations of the factor levels. The total number of full profile cards needed to represent all the possible combinations of factor levels was huge and hence we selected a small subset of all possible combinations called an orthogonal array. In an orthogonal array, 'each level of one factor occurs with each level of another factor with equal or atleast proportional frequencies, assessing independence of the main effect'. An orthogonal array represents the most parsimonious way to estimate all the main effects. Once the design plan was created by the orthoplan, each combination is put on separate cards to be administered to the respondents. This was done by using plans card procedure in SPSS. The cards have been customized to different managerial requirements. Interviewers explained the constructs while administering the questionnaire. When the cards were administered, the respondents entered the card number in the questionnaire grid accurately. This number is the sequential number of the cards as it appears on the plans card profile generated by the (SPSS) Ortho plan. Because of the technical details involved in the questionnaire, a face to face personal interview was conducted with the managers of the companies contacted. The interview took approximately 45 minutes. A few refusals were there in the study (10 %). The respondents for the study were top level and high level managers of various companies belonging to FMCG / CPG goods and consumer durables

goods industries. The sample was drawn randomly from the telephone directory to increase the accuracy of the data collection process. Once the sample was chosen, the 32 full profile cards were administered to each respondent. In the first step, the respondents were asked to sort the 32 cards into 3 piles of cards such as (1) most preferred (2) neutral, and (3) least preferred. In the next step, each pile was individually ranked from top to bottom. In this way, conjoint data was collected. At every stage, it was ensured by the interviewers that the respondents don't feel fatigue and develop a pattern to answer the questions.

We have used non-metric conjoint analysis in this study using SPSS and SAS soft-wares. Even though the model is non-metric, we have only captured the main effects by using orthogonal design based array. We also realize that certain variables like price premium and differentiation strategies can interact with each other necessitating other types of designs like metric conjoint analysis which uses interval scaled preferences for attributes. Thus, metric conjoint analysis can incorporate interactions, which was not pursued by us, because capturing parameters of the 13 sets of strategies and deriving utilities for each attribute level from the dummy variable conjoint analysis is complicated and cumbersome. We are ignoring the interactions and assuming causal interrelationships between some variables are non-existent. In particular, one needs to note that ours is a cross-sectional model capturing one snap short measurement of strategies and there is no time-wise longitudinal interrelationships between variables. Since, we are capturing rank ordered data along with only the main effects; we will be ignoring the effects of interactions between constructs, which in turn leads to a parsimonious model that is easy to estimate. This is a limitation of the current study and instead of complicating the design with fractional factorial designs, we have used a simple and straight forward model, Further, strategies are hierarchical in nature, and while modeling with multi-level models, the sample size of 104 is not adequate. Also, we are not sure which variables are to be taken as higher level variables and which variables are taken as lower level variables. Using empirical results of this study, we infer posture to be the most important variable for the first level modeling and other variables to follow this construct. One is also tempted to say that generic strategies should be at the higher level factor followed by other variables. There is no clear-cut way to choose the hierarchical variables and design the multi-level model.

Results of conjoint analysis

The responses collected from 104 senior managers were first analyzed as a conjoint exercise. Average importance of different strategy sets are given below in descending order (see Table 1). For the consumer product categories: Posture, product strategy, leadership strategy and market penetration strategies are the few most critical variables affecting strategic choices. Porter's generic strategies, pricing strategies and branding strategies occupy a middle slot in terms of importance. Once a posture is chosen for a company, later generic strategies can be assigned. Probably, there is a hierarchy of strategic choices and a small sample does not allow us to study such hierarchies in detail with multi level modeling. Customer relationship management, promotional strategies, scope, leverage of brand name or corporate reputation etc seem to be unimportant from manager's point of view. Similarly, importance of strategies by various types of businesses can be studied (see table 2). This data is given for FMCG

goods, white goods, brown goods, appliances, two wheeler companies and four wheeler companies. More or less a similar pattern is observed in table 2 like table 1. (Two additional tables providing average utilities for various strategy factors and their levels and the same data for different industries are available from the author on request).

Componential segmentation – naming of strategic clusters.

In the next step, we did cluster analysis of the strategic utilities obtained from the conjoint study. This process is known as Componential segmentation. We used Ward's clustering method to select a series of clusters ranging from 3 to 7 numbers and arrived at an optimal 4 cluster solution based on the best set of strategic choices. Table 3 gives the mean utility values for different strategy sets by types of clusters. Based on an interpretation of the cluster centroids, we named the 4 segments as follows: The words associated with each cluster based on higher mean utilities is used in naming the clusters,

Cluster STG1 –Leveraging multi-brand structure companies using differentiated, proactive and preemptive strategies and with a strong brand focus to the urban markets.– segment size 40 %

Cluster STG2 – Mega-umbrella brand strategy based global leaders and some follower firms using defensive and preemptive strategies, setting high prices and delivering push and dealer care strategies to hold on to the market – segment size 30 %

Cluster STG3 –Market focused challenger firms with multiple sub-brand strategies who are technology leaders using reactive but innovative responses to rivals, leveraging brand names with value based pricing strategy and consumer emotional bonding/ pull strategy– segment size 17 %

Cluster STG4 –Offensive strategy based globally reputed firms with Cost and quality leadership strategies and urban market focus– segment size 13 %

These 4 cluster members are used as inputs to a latent class regression model along with other variables.

Cluster analysis of Environmental variables: (Table 4 gives final cluster centroids for environmental forces). There were 19 statements describing the competitive environment of the 104 managerial responses. These statements were subjected to Wards clustering algorithm and optimal 3 groups were obtained based on their discrimination power. Based on an interpretation of the cluster centroids, 3 clusters were named as follows:

Cluster ENV1 – Highly dynamic and volatile, highly competitive markets due to promotion, technology, Innovation, differentiation, fast cultural changes, new segment evolution, high degree of price cutting and high degree of shake out of players - segment size 47%

Cluster ENV2 – Moderate degrees of competition – high growth markets, low on product and brand differentiation, few cultural changes, low new segment evolution & lower degrees of price cutting strategies – segment size 42%

Cluster ENV3 – highly price based competitive markets, slow and steady, sluggish growth markets due to low degrees of product differentiation but good brand differentiation and oligopoly coordination, low on commodity status, low degree of predatory advertising competition, low on innovation and technology based competition, low shake out, and no proliferation of segments – segment size 12%

Cluster analysis - performance measures (see Table 5)

There were a total of 10 performance variables detailing sales volume, market share, sales growth rate, segment performance variables and financial outcome measures such ROI, ROA, ROS and EPS. These were subjected to Wards clustering program and the final cluster centroids are given in table 5. Based on an interpretation of the cluster centroids, 3 groups were identified:

Cluster PC1 – Highly profitable and market dominant players – high on sales volume, market share and financial performance indicators – Cluster size 37%

Cluster PC2 – Stuck in the middle firms – Low performance on market and segment wise variables with moderate financial performance and deemed stuck in the middle companies – Cluster size 24%

Cluster PC3–High sales volume and high market share companies with poor financial performance. Here, performance of market / segment level variables are high but financial performance is poor – Cluster size 39%

Latent class regression model:

In this model, a discrete variable such as financial performance cluster membership was regressed against: environmental cluster membership (nominal variable), strategic typology obtained from Conjoint study (nominal variable), organizational variables such as company type – MNCs, Indian companies and Indian MNCs (categorical variable), entry states (binary variable) – (ease of entry and strong entry barriers), type of industry such as FMCG, Durables and automotive players (categorical variable), intensity of rivalry (interval scaled variable), number of players, concentration, market growth and number of employees (size) (the last 4 variables are quantitative variables). Several Latent class regression analysis were undertaken with 1 to 4 latent groups and based on low AIC (186.5), BIC (368.5), Log Likelihood (-47.2), CAIC (-354.5) and Entropy R^2 = 88.46 and classification error 5%, 3 cluster solution was chosen. Based on the above statistics, a 3 cluster latent regression model was found fit for the study. Latent class regression results are given in tables (6, 7A, 7B, 7C, 7D).

Financial and market performance variables based cluster membership = F (competitive intensity, strategic typology, environmental groups and control variables like type of industry, entry conditions, employee based firm size, concentration, market growth rate and number of rivals in the market).

Latent groups relationships

Latent classes	Performance clusters	Environment matching	Strategic cluster membership matching
Latent class 1 (LC 1) Size 40 %	PC3 (77 % size) High market performance and low financial performance	Environment 1 (ENV 1) dynamic highly competitive market with promotion, differentiation, innovation and price competition	STG 2 – Umbrella brand follower firms with skimming prices and defensive and preemptive strategies
	PC2 (21 % size) Stuck in the middle firms, poor market and financial performance	Environment 2 (ENV 2) moderate competition, growth market, low on differentiation, no price cutting, no new segment / cultural segments evolution	STG 2 - Umbrella brand follower firms with skimming prices and defensive and preemptive strategies, push strategies and dealer care
Latent class II (LC 2) Size 32 %	PC1 (66 % size) High market and financial performance	Environment 3 (ENV 3) slow growth, moderate competition, brand differentiation, low product differentiation, oligopoly coordination	STG 4 – Global players, cost leadership, quality leadership, urban focus, narrow scope
	PC 2 (34 %) Stuck in the middle firms, poor market and financial performance	Environment 3 (ENV 3) slow growth, moderate competition, brand differentiation, low product differentiation, oligopoly coordination	STG 3 – Multiple sub-brands, challenger reactive, technology leaders, VFM pricing cost leaders, emotional bonding strategies
Latent class III (LC 3) Size (28%)	PC2 (84 %) Stuck in the middle firms, poor market and financial performance	Environment 2 (ENV 2) moderate competition, growth market, low on differentiation, no price cutting, no new segment / cultural segments evolution	STG 1 –Multi-brand preemptive, differentiated firms STG 3 – Multiple sub-brands, challengers, technology leader, reactive firms, VFM money pricing, cost leadership firms

Latent Class Regression – Profile Outputs (see Table 6)

The profile output in Table 6 gives information on the latent class segment sizes and the class specific probabilities of the dependent variable. The classes are arranged in descending order according to their sizes. The first latent class (LC1) segment contains 40 % of the subjects,

the second latent class segment (LC2) contains 32 % of the subjects and the last latent class (LC3) segment contains the remaining 28 % of the subjects. Examining class specific probabilities shows that the overall latent class I (LC1) contains 73 % of firms (PC3) that have high market performance (market share, sales) but poor financial performance. Also, 21 % of the firms in the latent class I (LC1) belong to stuck in the middle group of firms (PC2) – low on market performance and moderate on financial performance. Latent class II (LC2) contains 66 % of high performance firms (PC1) – high on both market and financial performance and 34 % of the firms are stuck in the middle firms with moderate market performance and poor financial performance (PC2). Last latent class segment (LC3) has 84 % stuck in the middle firms (PC2) – low on market performance and moderate financial performance.

Interpretation of Beta parameters (See Table 7A): The Beta parameters measure the influence of that predictor variable on the dependent variable, namely- the performance class membership. The first row of Beta parameters in Table 7A shows indeed that the 3 latent classes (LC1, LC2, LC3) have different performance levels as modeled and expected at 0.08 (p value) level of significance. From the same table, we infer that the company type (at 0.015 level of significance) and ease of entry variable (at 0.042 level of significance) are highly different across the latent classes. However, strategic clusters (STG 1, STG 2, STG 3, and STG 4) are moderately different across the latent classes at 0.08 level of significance. Environmental clusters (ENV 1, ENV 2, and ENV 3) are significantly different across the latent class segments at 0.028 level of significance. Overall, differences between performance clusters and strategic clusters are moderately significant (p value=0.08). Other than market growth, all covariates – concentration, employee size, number of players, intensity of rivalry and type of industry, are highly significant at the 0.05 level of significance.

Differences amongst performance clusters (See Table 7A): High performance cluster (PC1) is associated with latent class II (LC2) and the impact is a positive coefficient (coefficient =3.621) implying LC 2 favors better performance of firms. Further, the effect of performance cluster (PC 2) is also moderately positively significant (coefficient = 2.964) implying that Latent class II (LC 2) has some stuck in the middle firms (PC 2) who have positive performance. Impact of latent class I (LC 1) segment leads to (PC 3) good market performance and poor financial performance (coefficient =1.7 – individually statistically (p value =0.090) not significant as inferred from Tables 7A and 7 D)). In latent class segment III (LC 3), we find that the impact is positive for stuck in the middle group of firms (PC 2) and again we find positive coefficients for PC1 implying, these firms in LC1 are highly successful in terms of market share and financial profitability.. The Differences between the performance clusters is significant at the 0.08 level of significance.

The effects of Environmental clusters (ENV 1, ENV 2, and ENV 3) on performance clusters (PC 1, PC 2, and PC 3): The Beta coefficient estimates under the column labeled class I, implies that latent class segment (LC 1) is positively influenced by environment group II (ENV 2) with Beta values = 4.48 (these are environments with moderate degrees of competition, low on differentiation, few cultural changes, no new segment evolution and no price cutting strategies). Further, in latent class I (LC 1), we find that environmental segment

III (ENV 3) – composed of slow growth and highly competitive markets) has a high negative impact on performance (Beta coefficient = -5.52). These markets (ENV 3) are highly competitive with slow and sluggish market growth, low product differentiation but high brand differentiation facilitating oligopoly coordination and tacit collusion amongst firms. Similarly, environment cluster III (ENV 3- slow growth, highly competitive markets) has a positive impact on latent class II (LC 2) implying positive performance outcomes with high market and financial performance (PC 1) (coefficient =2.878 - coefficient not individually statistically significant as per Table 7B) because of highly competitive markets with slow, steady and sluggish market growth wherein competition beneficially improves performance based on efficiency of operations achieved by large market share. Similarly latent class III (LC 3) is positively influenced by Environment II (ENV 2) due to moderate growth, low differentiation and moderate competition (Coefficient = 14.889). The Beta estimates for latent class III (LC 3) shows that moderate degrees of competition explains poor performance (PC 2) of the environment II (ENV 2) because there is lack of efficiency in operations due to low degrees of competition and firms have become lethargic due to reduced levels of competition. Latent class 3 (LC 3) is composed of 84 % poorly performing stuck in the middle firms. They perform poorly because of slow growth and moderate competition. Latent class I (LC 1) is composed of 77 % of the high performing firms and they fare better in Environment II (ENV 2) because of moderate growth and moderate degrees of rivalry.

The Beta estimates under latent class II (LC 2) implies that the environment I (ENV 1) is highly dynamic and fiercely competitive leading to a negative impact (coefficient = -7.44) on performance clusters while Environment II (ENV 2) with moderate growth, low differentiation and moderate competition) is influencing in a positive manner on performance despite that some firms are stuck in the middle (PC 2) (coefficient = 4.5). Highly competitive environments (ENV 1 and ENV 3) explain poor performance of latent class III (LC 3) (coefficients -6.8, -0.798) due to wastage of resources in self cancellation of strategies causing more resource requirements and less profit. Further, we see that high performance (PC 1) of latent class segment II (LC 2) occurs due to high degrees of competition (ENV 3) and better performance based on efficiency of operations (beta coefficient = 2.88).

Impact of strategic clusters on performance (See Tables 7A, 7B, 7C and 7D): Latent class I (LC 1) follows mega umbrella brand- reactive - follower strategies with skimming prices and defensive and preemptive strategies (STG 2) leading to (coefficient = 7.2) moderate / poor performance (PC 3 and PC 2 firms). For this segment, the rest of the 3 strategic clusters, namely – Strategy cluster 1 - proactive - differentiated multiple brands strategy (STG 1), - strategy cluster 3 (multiple sub-brands reactive, challenger, technology leadership strategy with VFM pricing, emotional bonding (STG 3) and strategy cluster 4 (narrow, urban focused global players of repute with quality leadership status (STG 4) have a uniform negative impact on latent class I (LC 1) performance (coefficients = -2.85, -1.87, -2.5 respectively) implying that these 3 strategies are viable alternatives for posting better performance in latent class I (LC 1) segment. Despite this, some firms are stuck in the middle (PC 2). Latent class II (LC 2) segment has high performing firms (PC 1) (both market and financial performances) and somewhat stuck in the middle (PC 2) firms using strategy set 3 (STG 3-

multiple sub-brands challenger strategy with technology leadership, reactive and VFM pricing strategies) (Beta coefficient =3.34). Latent class 3 (LC 3) relegates firm performance to stuck in the middle status (PC 2) because of strategies like STG 3 (coefficient =7.46) (STG 3 – multiple sub-brands, challenger, reactive technology leader, VFM pricing) and strategy 1 (STG 1) (coefficient = 5.21) (STG 1 – multi-brands differentiated preemptive firms). Since, multiple brands or multiple sub-brands require large resource commitments; the financial performances of these segments are poor. From this, we can conclude that latent class III (LC 3) has high negative impact for strategy set 4 (STG 4- coef= -10.5) (urban focused global players with quality leadership) implying moderate performance (PC 2- low market performance and moderate financial performance) because of narrow focus and reputation for global image and quality leadership. Strategies that seem to work positively are (LC 3) technology based reactive challenger strategies with VFM pricing with multiple sub-brands (STG3) and Multi-brand preemptive differentiated strategy (STG 1); but despite that they lead to stuck in the middle status (PC 2) because of slow growth but highly competitive markets.

Effect of company type: **(See Tables 7A, 7B, 7C and 7D)**

Company type has a significant impact on the performance of the three latent classes. Indianised MNC companies seem to operate positively (coefficient =3.2) and amicably in latent class I (LC 1) with good market performance and low financial performance (PC 3 and PC 2). As opposed to this, new MNC entrants have garnered better performance in the latent class II (LC 2) (coefficient =11.027) with high financial and market performances (PC 1) by following strategies, (Strategy group 3- STG 3)- multiple brands, reactive, challenger, technology leadership strategies with VFM pricing and to some extent follow strategies like narrow focused global players with quality leadership strategies (STG 4). Indian local brands and national brands post positive performance in latent class III (LC 3) despite which they are stuck in the middle in terms of performance (Coefficient =4.032). Probably, strong entry barriers and moderate competition (ENV 2) facilitate a positive impact on performance in this segment. MNCs in latent class II (LC 2) are performing well due to highly competitive (ENV 3) nature of the market, improving efficiency of operations and favoring ease of entry by late entrants (coefficient =11.027). Latent class III (LC 3) has high entry barriers (coefficient = 4.3) while latent class II (LC 2) has very high ease of entry (coefficient = 1.42) conditions leading to better financial performance of new entrants (PC 1).

Between segment differences – Environmental differences: **(See Tables 7A, 7B, 7C and 7D)**

Environment I (ENV 1) (highly competitive markets due to differentiation, promotion, technology, innovation and highly price competitive markets) has a significant positive influence on latent class segment I (LC 1) (coefficient (1.039) corresponding to high market performance and low financial performance (PC 3) while **Environment** 1 (ENV 1) has a large negative impact on latent class II (LC 2) and latent class III (LC 3) with coefficients (-7.4, -6.69 respectively). **Environment II** (ENV 2 – moderate degrees of competition, low on differentiation, less volatile, no new segment evolution) has a uniform positive effect on all 3

latent classes (LC 1=4.5, LC 2 = 4.6, and LC 3 = 14.89) - the performance of latent class III (LC 3) is improved because of slow growth, highly competitive markets improving efficiency of operations and financial performance (PC 1). **Environment III** (ENV 3) has a high negative impact on latent class I (LC 1 – coefficient =-5.52) and latent class III (LC 3 – coefficient = -0.798) segments and has a positive impact on latent class II (LC 2) segment, which is highly competitive with slow steady growth environment which helps high degree of brand differentiation due to oligopoly coordination and tacit collusion in latent class II (LC 2) for posting better positive performance (PC 1).

Between segment differences – Strategic cluster differences: **(See Tables 7A, 7B, 7C and 7D)**

Strategy set 1(STG 1) – (Proactive, differentiated strategy with endorsed multi-brand structure). This strategy somewhat improves positively performance of firms in latent class III (LC 3 – favoring (PC 2)- stuck in the middle performance (coefficient =5.21) while it has a negative impact in latent class I (LC 1) and Latent class II (LC 2) segments respectively with coefficients (-2.9, -1.4). Strategy I (STG 1) requires multiple brands with a need to invest lots of resources on each brand (in terms of promotion and R &D), leading to poor financial performance (PC 3) in latent class III (LC 3); the firms are stuck in the middle in terms of financial performance in this segment (PC 3).

Strategy set II (STG 2) – (Mega umbrella brand follower strategy with skimming prices and defensive and preemptive strategies, push strategy and dealer care in the channels of distribution). STG 2 positively enhances market performance in latent class I (LC 1) corresponding to PC 3 – high market performance and poor financial performance (coefficient =7.212). Probably skimming price strategies reduces sales volumes in some segments precluding high financial performance in this segment (LC 1). This type of strategy leads to negative impact on performance in latent class II (LC 2) corresponding to PC 1 (high market and high financial performance) and latent class III (LC 3) corresponding to PC 2 (low market performance and moderate financial performance). Because of a follower strategy, financial performance is affected in latent class II and latent class III segments. May be high prices do not help the cause of this strategy for good financial performance because of reduced sales at high prices (elastic demand or skimming strategies addresses narrow segments).

Strategy set III (STG 3) – (multiple sub-brands technology leader, reactive VFM pricing strategy, emotional bonding strategy). This strategy is beneficial in latent class II segment (LC 2), corresponding to performance cluster I (PC 1 high performance cluster - coefficient = 3.34); and in latent class III (LC 3) segment corresponding to performance cluster II (PC 2- low market performance and moderate financial performance). Most of the stuck in the middle large Indian companies operate in LC 3 segment and adopt this strategy and are partly, stuck in the middle firms which are moderately financially successful in operating in this environment. Further, this strategy is a key to boosting financial performance of firms in the latent class II (LC 2 segment) – corresponding to PC1 – high market and high financial

performance. Most of the automobile and durables companies are in this segment - latent class II (LC 2) posting very good financial and market performance.

Strategy 4 (STG 4) – (narrow scope, urban focus, global players of repute with quality leadership strategies). This strategy is a significant contributor to high financial performance of latent class II (LC 2) segment corresponding to PC 1 (coefficient=0.1789 – this statistics is individually not significant in Table 9 D). Narrow scope devoid of direct competition and rich urban focused markets attracting premium customers at high prices without resorting to dominance of the interior markets (reduced cost of distribution) of firms leads to favorable impact on performance in latent class I (LC 1) and latent class III (LC 3) segments with coefficients (-2.5 and -10.5 respectively). As a result, these firms (durables and automotive companies) post very good financial performance. Further, ease of entry in latent class II (LC 2) segment favors new entrants. Despite large entry barriers in latent class segment III (LC 3) corresponding to PC 2, the Indian MNCs (-3.924) are stuck in the middle in terms of performance (coefficient 4.283).

For latent class I segment (LC 1), the three strategies – STG 1 (proactive differentiated endorsed multi-brand strategy), STG 3 (multiple sub-brands, reactive, challenger, technology leadership firms with VFM pricing strategy, and emotional bonding) and STG 4 (narrow urban focus, global leaders of repute with quality leadership) have a uniform negative impact (on latent class I (LC 1)) implying that these 3 strategies are viable mechanisms for positing better performance in environments I and II (ENV 1- dynamic markets with promotion, innovation, differentiation and price competition and ENV 2 – moderate competition, growth market, low on product differentiation, high on brand differentiation, no price cutting and no new segment evolution) – where ENV 1 allows high degree of differentiation on all aspects of marketing strategy and ENV 2 allows high degree of brand differentiation in growth markets both allowing better performance due to entry and mobility barriers.

Effect of covariates

The Gamma parameters of the latent class model for the latent distribution appear at the top of the parameter output in **Tables 7B and 7D.** The p values associated with the Wald statistics shows that the overall effects of concentration, employee strength, number of rivals, intensity of rivalry and type of industry are significant at 0.05 level except for the market growth variable whose value is insignificant (p=0.32).

Type of industry: The gamma parameters associated with FMCG industries for the 3 latent classes (2.24, -1.91,-0.33) suggest that FMCG firms are more likely to belong to latent class segment I (LC 1), namely with high market performance and poor financial performance (PC 3). The gammas associated with durables industries (-0.73, 0.46, 0.26) suggest that they are more likely to come from latent classes II and III (LC 2, LC 3). Automobile majors and durable companies abound in latent class segment II (LC 2) and they are high performance oriented firms (PC 1- high market and financial performance). As a result, both durables and automobile industries have better market and financial performance than FMCG and CPG firms.

Intensity of rivalry: The variable intensity of rivalry is significantly different across the three latent classes at p value =0.0027 level of significance. The impact of rivalry in latent class II (LC 2) has a high positive significant effect on market and financial performance (leading to PC 1- high performance cluster). The effect of rivalry is negative in latent class I (LC 1) and III (LC 3) segments and the intensity of rivalry affects performance of LC 3 segment in such a manner that these firms are stuck in the middle unable to achieve competitive advantage in the market. Impact of rivalry is at its highest level for the high performance group (LC 3) and this goes without saying that competition makes firms more efficient and optimal to achieve good performance. The intensity of rivalry is low in latent class groups I and III (LC 1 and LC 3) and its impact is more likely to be in high market performance and low financial performance due to inefficiencies and high resource commitments to multiple individual brands leading to poor financial performance despite good market performance. The effect of rivalry is n shaped such that its impact is low in LC 1, high in LC 2 and very low in LC 3.

Number of players: The impact of number of players is negative in latent class segment III (LC 3) and the firms report stuck in the middle performance due to large number of rivals in the market. The number of players positively affects performance in latent class I (LC 1) and latent class II (LC 2) segments. High concentration in LC 2 and LC 1 clusters with more number of players and reduced entry barriers seem to offer high market performance in LC 1 and high financial performance in LC 2. The latent class III (LC 3) parameter is negative implying a curvilinear relationship between number of players and performance of firms.

Concentration: An inverted U shaped relationship between firm performance and concentration can be gleaned from the parameters across the three latent classes (-0.039, 0.1138, -0.152). As concentration increases from low to high values, financial performance increases and then decreases leading to an inverted U shaped curve. High degree of oligopoly coordination and high degree of concentration in latent class II (LC 2) improves financial performance of this segment (PC 1- high market and financial performances and PC 2- low market performance and moderate financial performance).

Employee strength (Size effect): Relationship between employee strength and financial performance is at best a positively sloping linear curve. With low levels of employee strength, its impact on performance is not good (-0.0011) and as employee strength increases performance also improves (latent class III (LC 3) coefficient 0.011).

Discussion

Moderate degrees of competition (ENV 2) with mega umbrella brand strategy (STG 2) with skimming prices and follower posture based on defensive and preemptive strategies, and with strong push strategy in the distribution channels typically followed by Indian MNCs leads to high market performance and poor financial performance (PC 3). These firms are inefficient due to lethargy and inertia in changing strategies from pre-liberalization period to current status in the dynamic market. These Indian MNCs' invested in the past on channels, media and communication strategies through which they are able to defend their market shares and

sales volumes leading to short term rises in resource allocations and poor short term financial performance (waiting for greater profitability in the future). These firms in the past used skimming pricing strategies and their continuation of past strategic choices to the changed market conditions posts inelastic demand patterns in which consumers desert Indian MNC brands and flock to buy MNC brands (because of MNCs are offering high technology products and quality leaders) to which sophisticated upward mobile Indians migrate buying latest International MNC products which the Indian MNCs cannot match; leading to poor financial performance. They are probably harvesting market share to improve profitability. Because of synergies in media and channels of distribution, under mega umbrella brand names and because of their past investments in defensive and preemptive strategies they are able to defend their market positions. Changes in consumer behavior post liberalization and free entry conditions are putting Indian MNCs in an awkward financial position. They cannot afford to match the high degrees of resource allocation on promotions and innovations to match these MNC rivals due to limited resources. However, Indian MNC firms like Maruti Suzuki, Mahindra motors, TVS motors, TATA Motors, Max Mobiles etc. have hung in there to compete with MNCS because of some pioneering benefits.

MNC companies following multiple sub-brands strategy, technology based reactive firms, engaging in cost leadership strategy with emotional bonding (STG 3) operating in moderately competitive environments (ENV 2) post moderate financial performance and low market performance (PC 2). Moderate competition and ease of entry for late entrant firms helps automotive firms to post high performance. The few firms in this group resort to tacit collusion and with no resistance to entry they post better performance. High concentration in latent class segment II (LC 2) positively enhances firm performance (PC 1). High concentration is also accompanied by high degrees of rivalry usually between oligopoly members who improve their efficiency of operations leading to better performance. Despite this, some automotive companies like Chevrolet and Nissan have been bailed out of the market due to intense rivalry of many MNC players..

Despite moderate competition in Environment II (ENV 2) and firms following strategy cluster 3 with multiple sub-brands, reactive challenger strategies with high degree of technology leadership and VFM cost leadership strategies (STG 3)- Some Indian local firms and some Indianised MNCs are stuck in the middle (LC 3) corresponding to (PC 2) performance. They are poor performers due to lethargy in strategic changes, inefficiencies in operations due to moderate competition in the past, and unable to get out of inertia of pre-liberalization economic period and inability to adapt to changed market conditions with the entry of internationally reputed MNCs.

Latent class II segment (LC 2) is highly profitable (PC 1) due to high impact of concentration (coefficient 0.113), intensely competitive volatile markets (coefficients 2.53) improving efficiencies of operations with tacit oligopoly coordination in slow growth markets (coefficient 0.049) leading to high performance. These are largely automotive MNCs (0.1445) and durable companies (0.47) operating in India. Endorsed multi-brand strategy with preemptive differentiation and urban focus for global players of repute with quality leadership strategies, showcase better performance in latent class 1 (LC 1) implying that in

highly dynamic markets (ENV 1) with lots of opportunities for differentiation, promotion, innovation and pricing strategies, it is easy to perform better. Differentiation, promotion and innovation confer competitive advantages in building entry and mobility barriers and for firms following these strategies it results in better performance. In this instance, both global image and quality differentiation and urban focus strategies yield better performance.

Additional Analysis

We captured non-linear relationship between Strategy clusters and environmental clusters in Latent class regression model. Some authors have suggested that strategy is an adaptation mechanism to the environment and hence they should use an interaction term between environmental cluster membership and Strategic cluster membership. The interaction term was not significant and led to non convergence with boundary solutions problems. Trying to utilize a numeric covariate or include nominal variables did not improve the results. Hence, we stuck to a three cluster solution obtained with the above Latent class Regression model.

Future Research

We feel that there exists a hierarchy of Strategies and hence a hierarchical or multi-level Latent class regression model should be fitted for the data. We didn't have enough sample size to achieve that. We suggest that as an additional module or as a sequel to this paper. Further, one needs to know that conjoint based strategies are intended strategies and may not necessarily fructify as realized strategies. Lastly, only main effects were captured and that interactions were not captured in the conjoint analysis which is a limitation of the study. In the Latent class analysis, the significance (p value) value of environmental cluster membership is very good (p=. 026) but significance of Strategy cluster membership is moderate (p= 0.08). This result confirms lukewarm impact of Strategic effects on firm performance when including rivalry in the model. My own analysis of the PIMS database also suggests a lukewarm relationship between Strategy and financial performance (p Value =around .08) in the presence of rivalry.

What this means to the strategist? All Strategies - differentiation or cost leadership or niche focus strategies have equal opportunities to yield good performance and the distribution of performance differences across firms is due to industry characteristics and the degree of rivalry / concentration in the markets.

Limitations: The overall sample size of 104 in FMCG and durables markets in India were small for Latent class regression model analysis. We covered all the possible firms in the 5 metros and we could not source extra sample size without taking multiple observations per company / SBUs. We request that firms operating in large numbers to be studied in the evolved Western markets to see Strategy – environment -performance relationship conclusively.

Conclusions

In our study, we found that neither environmental clusters nor strategy clusters were deterrents of firm performance. Intensity of rivalry, size of firms based on employee strength,

number of players, concentration, type of firm and type of industry are the key determinants of firm performance. We suggest that several strategies may have equi-potential opportunities / outcomes for better performance which are buttressed by competition, firm and industry characteristics. The lack of Strategy link (in the presence of competitive intensity) in this paper cautions against the conduct theory in economics and affirms that structure performance models are in itself a self-sufficient theory to understand firm performance. However, one needs to study the intensity of rivalry and how Strategy leads to intensity of rivalry. Studies that account for the impact of Strategy on intensity of rivalry could throw more light on the performance issues of firms. Lukewarm relationship between Strategy and performance in the PIMS database and in the current study are worth investigating in the future. The incidence of low significance of Strategy sets could also be due to omitted structure of the estimation process neglecting some interaction terms. We feel that Strategies are hierarchical in nature and that multi-levels models with large sample sizes may be needed to prove the presence of the significant effects of Strategy variables on firm performance. Lastly, these studies should be done with time wise longitudinal data and time series models to see the stickiness of strategies over time and their impact on performance.

trategic choice and Trade Off analysis model - Fig 1

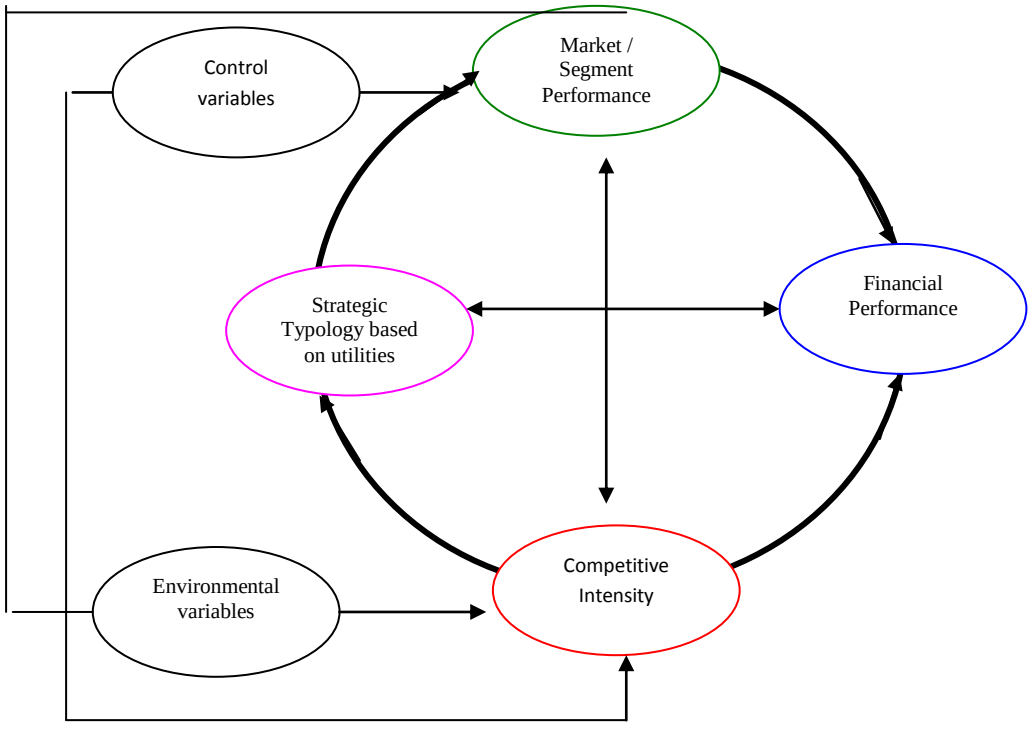

Table 1 – Importance weights of different strategies

Strategy Variable name	Mean importance
Posture and product strategy	20.2
Leadership strategy (challenger, leader)	10.7
Leadership strategy (technology, quality, global)	10.5
Market penetration (urban / rural)	8.5
Generic strategy (differentiation / cost leadership)	8.2
Pricing strategy	8.2
Branding strategy	8.01
Care dimension	4.46
Promotion strategy	4.43
Brand strategy – Brand / product differentiation	4.47
Leverage	4.26
Scope	4.18
Consumer bonding strategy	3.98

Table 2 – Importance weights by different types of industries

Factors	FMCG	White Goods	Brown Goods	Appliances	2 Wheeler Companies	4 Wheeler companies
Leadership strategy 1	10.2	11.24	12.15	10.11	11.27	11.06
Leadership strategy 2	11.2	8.78	10.17	9.06	10.48	11.55
Posture	20.6	21.06	2.03	20.75	21.08	18.09
Generic strategy	8.8	7.62	8.12	6.20	6.57	9.45
Scope	4.3	3.88	4.31	3.97	4.08	4.71
Bonding strategy	4.1	3.23	3.70	4.04	6.05	3.36
Pricing strategy	7.2	8.93	9.39	8.6	9.07	8.54
Branding strategy	7.1	8.75	7.61	9.8	8.18	8.42
No of brands strategy	4.2	5.24	3.91	5.10	3.55	5.29
Leverage	4.3	4.25	4.67	3.57	5.42	3.32
Care dimension	4.94	3.13	5.01	4.4	5.09	3.81

Promotional strategy	4.21	4.28	2.79	5.61	5.10	5.6
Market penetration	8.85	9.60	8.14	8.87	4.06	7.8

Table 3 Strategic utilities – cluster interpretation of componential segmentation

Name of variable	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Mega brand strategy	-1.16	0.8	-.13	-.3
Sub brand strategy	-0.32	.44	1.28	.46
Brand differentiation	-0.69	-.12	.19	-.16
Dealer care	-.39	.69	.13	-.33
Emotional bonding	-.28	-.22	.66	.39
Differentiation	0.79	-.81	-.47	-.37
Cost leadership	-1.21	.76	1.46	2.93
Leader	-0.56	-.33	-1.11	-1.09
Challenger	.4	-.41	2.38	-1.39
Follower	-.35	1.33	-.41	.4
Quality leader	-.35	-.68	.11	1.43
Global leader	-.10	.87	-.92	1.89
Technology leader	-.02	-.54	.67	-1.01
Brand leverage	.32	0.48	1.45	-1.01
Urban market	.68	0.35	.39	1.2
Semi Urban market	-.22	.17	.34	.19
Posture 1 defensive	-.4	1.09	.8	-1.43
Posture 2 offensive	-.42	-.32	2.2	7.25
Posture 3 preemptive	1.08	5.02	-5.04	1.04
Posture 4 proactive	4.26	-2.52	-.73	.84

Posture 5 reactive	-1.77	-3.44	.23	-.38
Posture 6 innovative	-1.64	-.42	3.76	-7.24
Skimming	-.29	.34	-.88	-.09
Value for money	.17	.70	.71	-1.9
Consumer promotion	-.7	-.28	.00	-.12
Brand focus	.26	.03	.82	-.54
Cluster size:	**40%**	**30%**	**17%**	**13%**

Table Number 4: Final cluster centroids based on cluster analysis of environmental variables

Name of variable	**Cluster 1**	**Cluster 2**	**Cluster 3**
Highly dynamic – volatile market	4.35	3.76	3.11
Slow steady growth market	3.52	2.68	3.89
High degree of predatory advertising competition	4.04	3.34	2.83
Innovation based competition	4.2	3.41	3.33
Technology based competition	4.26	3.34	3.00
Price based competition	4.43	4.02	4.26
Product differentiation	4.2	3.8	3.50
Brand differentiation	4.0	3.78	3.94
Fast cultural changes	4.15	3.41	3.50
New segment evolution	4.39	3.39	3.67
High degrees of competition	4.52	3.76	4
Market slow growth / sluggish	3.33	2.78	3.67
Rapid changes in innovation	4.3	3.66	3
Market is growing very rapidly	3.5	3.15	1.89
Commodity status	3.7	2.9	2.17

Proliferation of segments	3.7	3.07	2.28
Price cutting	4.33	3.66	3.67
Shake out	4.00	3.41	2.67
High differentiation	4.24	3.61	2.89
Cluster size:	46%	41%	18%

Table Number 5

Cluster analysis of performance variables – final cluster centroids

Name of variable	**Cluster 1**	**Cluster 2**	**Cluster 3**
Sales volume	4.44	2.39	4.33
Market share	4.31	2.26	4.15
Segment wise sales	4.31	3.3	3.78
Segment wise share	4.11	3.26	3.59
Growth related to market	4.28	3.39	3.65
Growth related to segment	4.19	3.09	3.28
ROI	4.31	3.35	3
ROA	4.17	2.83	2.98
ROS	4.42	3.00	2.85
EPS	4.26	3.04	2.76
Cluster size :	**36**	**23**	**46**

Table 6 – Latent class regression – profiles output

Class Size	**Class 1**	**Class 2**	**Class 3**
Class size	.4004	.321	.279
Performance variable			
Cluster 1	.017	.659	.096
Cluster 2	.214	.341	.838

Cluster 3	.77	.000	.066

Table 7A – Latent class Regression coefficients (Beta Values) by segments

Dependent variable (BETA)	**Class 1**	**Class 2**	**Class 3**	**Wald**	**P value**	**Wald (=)**	**P value**
Performance variable							
Cluster 1	-2.128	3.621	-.601	10.688	.099	.8231	.083
Cluster 2	.424	2.964	1.569				
Cluster 3	1.7043	-6.5843	-.9682				
Predictors - environment							
Cluster 1	1.039	-7.435	-6.891	14.106	.028	10.888	.028
Cluster 2	4.485	-1.558	14.889				
Cluster 3	-5.524	2.878	-.798				
Company Type							
Indian Local	.2491	-.2619	4.032	12.795	.046	12.366	.015
MNC	-3.5	11.027	-.109				
Indianized MNC	3.2499	-.840	-3.924				
Ease of Entry							
Strong entry barriers	.485	-1.413	4.283	7.405	.06	6.345	.042
Ease of Entry	-.485	+1.413	-4.283				
Strategic utility clusters							
Cluster 1	-2.856	-1.394	5.21	12.27	0.02	11.173	.083
Cluster 2	7.212	-2.125	-2.169				
Cluster 3	-1.864	3.340	7.464				
Cluster 4	-2.492	.1789	-				

			10.515				

Table 7B – Latent class Regression coefficients (Gamma Values) by segments

Latent variable Gamma	**Class 1**	**Class 2**	**Class 3**	**Wald**	**P value**
Intercept	.4402	-.18938	18.498	14.14	.00085
Covariates					
Concentration	.039	.113	-.152	11.898	.0026
Employee size	-.0011	0	.0011	7.541	0.023
Market growth	-0.019	0.049	-031	2.309	.32
Number of players	0.0095	0.0099	-.0194	5.6058	.061
Intensity of rivalry	-.192	2.5302	-2.338	11.83	0.0027
Type of industry					
FMCG	2.239	-1.909	-.33	11.801	0.019
Durables	-.727	.4646	.2628		
Automobile	-1.511	.1445	.067		

Table 7C – standard errors (for Gamma parameters)

Latent variable gamma	**Class 1**	**Std. Error**	**Z Value**	**Class 2**	**Std. Error**	**Z Value**	**Class 3**	**Std. Error**	**Z Value**
Intercept	.4402	4.013	.1097	-.18938	5.0377	-3.7592	18.498	6.406	2.888
Covariates									
Concentration	.039	0.0243	1.61	.113	.033	3.431	-.152	0.0476	-.3188

Employee size	-.0011	.0005	-2.509	0	0.0003	-.0316	.0011	.0004	2.693
Market growth	-.019	.047	-.399	0.0493	0.0433	1.1384	-.031	.0767	-.397
No of players	.0095	.0042	2.249	0.0099	0.0042	2.3394	-.1094	.0084	-2.3021
Intensity of rivalry	-.192	.679	-.283	2.5302	.736	3.439	-2.338	.9711	-2.408
Type of industry									
FMCG	2.239	.699	3.202	-1.909	.864	-2.11	-.3295	.706	-.467
Durables	-.727	.509	-1.4296	.4646	.4758	.9764	.2628	.6809	0.386
Automobiles	-1.5114	.8219	-1.839	1.445	.7362	1.9624	.0667	.714	.093

Table 7D – (standard errors for Beta parameters)

Latent variable Beta	**Class 1**	**Std. Error**	**Z Value**	**Class 2**	**Std. Error**	**Z Value**	**Class 3**	**Std. Error**	**Z Value**
Dependent variable (BETA)									
Performance variable									
Cluster 1	-2.128	1.269	-1.677	3.621	2.028	1.785	-.6001	1.1460	-.524
Cluster 2	.424	.3998	1.0602	2.9636	1.646	1.8011	1.569	.799	1.963
Cluster 3	1.7043	1.1765	1.4486	-.5843	3.357	-1.9614	-.9682	1.167	-.8299
Predictors									
Environment									
Cluster 1	1.039	1.555	.6684	-7.435	3.635	-2.045	-.68912	2.9596	-2.3284
Cluster 2	4.485	2.458	1.825	4.558	2.436	1.871	14.889	6.142	2.424
Cluster 3	-5.524	2.761	-2.001	2.878	2.115	1.361	-7.998	3.659	-2.186
Company type									
Indian	.249	1.329	.1874	-.2619	2.187	-1.197	4.032	1.969	2.058
MNC	-3.499	2.399	-1.495	11.027	4.952	2.227	-.1087	1.502	-.0724
Indianized MNC	3.245	1.946	1.699	-8.4087	3.8136	-2.2049	-3.9235	-1.9184	-2.0452

Ease of entry									
Strong entry barrier	.4845	.4615	1.0498	-1.4126	1.1688	-1.2086	4.283	1.965	2.179
Ease of entry barrier	-.4845	.4615	-1.0498	+1.4126	1.1688	+1.2086	-4.283	1.965	-2.179
Strategy clusters									
Cluster 1	-2.856	1.58	-1.808	-1.394	1.253	-1.113	5.2099	2.5737	2.0243
Cluster 2	7.212	3.8824	1.858	-2.152	1.4612	-1.4545	-2.1587	+1.7454	-1.237
Cluster 3	-1.8644	1.6425	-1.1351	3.3401	1.979	1.687	7.464	3.3801	2.2081
Cluster 4	-2.492	1.5722	-1.5848	.1789	1.4250	.1255	-10.515	4.749	-2.214

References

1. Aaker, David (1996),Building Strong Brands, Simon and Schuster, UK Limited, Africa House, Kingsway, London WC3B6AH
2. Ang, Siah Hwee (2008),"Competitive Intensity and Collaboration: Impact of Firm Growth across Technological Environments", Strategic Management Journal: 29, 1057-75 (2008)
3. Abel and Hammond (1979),Strategic Management Book.
4. Batra, Rajeev, John G Myers and David Aaker (2003),Advertising Management, 19Th Edition, Prentice Hall of India, New Delhi, One Lake Street, Upper Saddle River, New Jersey 07458, USA
5. Bain, Joe S (1951),"Relation of Profits Rate to Industry Concentration: American Manufacturing Industries 1936 – 1940, Quarterly Journal of Economics, 64 AUG 1951, pp 294-324
6. Boulding, William and Richard Staelin (1990),"Environment, Market Share and Market Power", Management Science, 36 (OCT) 1990, pages 1160-77
7. Boulding, William and Markus Christein (2003),"Sustainable Pioneering Advantages? Profit Implications of Market Entry Order", Marketing Science, Vol 22, No. 3, summer 2003, pp 371-392
8. Blattberg, Robert C, Richard Briesch and Edward J Fox (1995),"How Promotions work", Marketing Science, Vol 14, No 3, part 2 of 2 (1995)
9. Buzzell, Robert D and Bradley T Gale (1987)"The PIMS Principles – Linking Strategy to Performance", Free Press, MacMillan, New York
10. Dean, Joel (1951),Managerial Economics, PHI Learning Pvt limited, Reprinted in 2008, New Delhi 110001, 1951 Prentice Hall, Upper Saddle River, New Jersey 07458 USA

11. Ethiraj, Sendil K and David H Zhu (2008),"Performance Effects of Imitative Entry", Strategic Management Journal", 29: pp 797-817
12. Garvin, David A (1988),Managing Quality: New York, Free Press (1988)
13. Green H Donna, Donald W Barclay and Adrian B Ryans (1995),"Environment, Strategy and Long term Performance- Conceptualization and Empirical Examination" Journal of Marketing, Vol 59 (OCT 1995), pp 1-16
14. Green, Paul and V Srinivasan (1978),"Conjoint Analysis in Consumer Research: Issues and Outlook", Journal of Consumer Research, 5 (SEP 1978), pp 102-23
15. Green, Paul, Donald S Tull and Gerald Albaum (1996),Research for Marketing Decisions, 5th Edition, Prentice Hall of India Private Limited, New Delhi – 110001
16. Hamel, Gary and C K Prahalad (1996),"Competing for the Future"- Harvard Business School Press, Boston, Massachusetts.
17. Kapferrer, Noel (1992),Strategic Brand Management Book, the Free Press, New York, NY
18. Kotler Philip and Gary Armstrong (2006),Principles of Marketing, 11th Edition, Pearson Prentice Hall, Copyright@2006 by Pearson Education Inc. Published by Dorling Kinduslay (India) Pvt Limited, 482 F.I.E Pataparganj Delhi 110092
19. Kotabe, Masaki, Srini S Srinivasan and Preeti S Aulakh (2002),"Multi-nationality and Firm Performance: The moderating role of R & D and Marketing capabilities", Journal of International Business Studies, 33, 1, (First Quarter 2002):79-97
20. Han, Jin K, Namwoon Kim and Rajendra K Srivastava (1998),"Market Orientation and Organizational Performance: Is Innovation a Missing Link", Journal of Marketing OCT 1998, Vol 62, pp 30-45
21. Narver, John C and Stanley F Slater (1990),"The Effect of a Market Orientation on Business Profitability", Journal of Marketing, Oct 1990
22. Miles E Raymond, Charles C Snow, Alan D Meyer and Henry J Coleman Jr (1977),"Organizational Strategy, Structure and Process", Academy of Management Review – July 1977
23. Miles, Raymond E and Charles C Snow (1978),Organizational Strategy, Structure and Process, New York, McGraw Hill Publication 1978
24. Milgrom and Roberts (1986),"Price and Advertising Signals of Product Quality", Journal of Political Economy Vol 82, pp 729-754
25. Matsuno, Ken and John T Menzar (2000),"The Effects of Strategy Type on the market orientation- Performance Relationship",Journal of Marketing, Vol 64(OCT 2000), 1-16
26. Porter, Michael (1985),Competitive Advantage – Creating and Sustaining Superior Performance, Free Press, New York 1985, A Division of Simon and Schuster Inc., 1230 Avenue of the Americas, New York 10020
27. Porter, Michael (1980),Competitive Strategy – Techniques for Analyzing Industries and Competitors, Free Press, New York 1980. A Division of Simon and Schuster Inc., 1230 Avenue of the Americas, New York 10020
28. Philips, Lynn W, Dae R Chang and Robert D Buzzell (1983),"Product quality, cost position and Business Performance: A test of some key hypotheses", Journal of Marketing, Vol 47, Spring 83, 26-43.
29. Scherer, Frederick M (1980),Industrial Market Structure and Economic Performance; Houghton Mifflin Publishing Company Boston 1980.

30. SPSS Manual – Conjoint Analysis- Plan Cards
31. Slater, F Stanley and John C Narver (1994)"Does Competitive Environment Moderate the Market Orientation – Performance Relationship?" Journal of Marketing, Vol 58(Jan 1994), pp 46-55
32. Slater, F Stanley and John C Narver (1993),"Product-Market Strategy and Performance: An Analysis of the Miles and Snow Strategic Types", European Journal of Marketing, Vol 27, No. 10, 1993 (pp: 35-51)
33. Sawhney, Mohanbir (2006),"Branding in Technology Markets", Chapter 11, Kellogg on Branding, Edited by Alice M Tybout and Tim Calkins, Wiley India (p) Ltd, 4435/7 Ansari Road, Daryaganj, New Delhi - 110002
34. Szymanski, David M, Sundar G Bharatwaj and P Rajan Varadarajan (1993),"An Analysis of the Market Share and Profitability Relationship", the Journal of Marketing, Vol 57 (July 1993), pp 1-18
35. Thietart, R.A. and R. Vivas (1984),"An empirical Investigation of Success strategies for businesses along the product life cycle",Management Science Vol 30, No. 12, Dec 1984.
36. Vakratsas, D and Ambler, Tim (1999),"How Advertising works?", Journal of Marketing, Vol 63(1), pp26-43, Jan (1999).
37. Venkataraman N and John E Prescott (1990),"Environment- Strategy Co-alignment: An Empirical Test of its Performance Implications", Strategic Management Journal, Vol II, 1-23 (1990)
38. Woo, Carolyn Y (1979),"Strategies of Effective Low share Business", PhD Dissertation 1979, Purdue University
39. Woo, Carolyn Y and Arnold Cooper (1981),"Strategies of Effective Low Share Business", Strategic Management Journal, Vol 2, 1981, pp 301-318