Dr. Prafulla AGNIHOTRI,

Professor, Marketing Group and

Chairman- Career Development and Placements,

Indian Institute of Management Calcutta

D. H. Road,

Joka, Kolkata 700 104

India

Telephone: +91 33 2467 8300 upto 06 extension 529

Email: Prafulla@iimcal.ac.in / pyagnihotri@gmail.com

An Empirical Classification of the Global Auto Industry using Bartlette and Ghoshal and Yip Typology of MNCs

Synopsis

Three types of firms are distinguished by nearly every study in International Marketing literature, on the basis of their international marketing strategies: Multidomestic (combining low integration and high responsiveness), Global (combining high integration with low responsiveness) and Transnational (combining high integration with high responsiveness). Although crucial in understanding firm strategies, industry globalisation is largely studied through subjective measures, consisting mostly case studies. This paper presents an objective measurement of the extent to which the automobile industry is globalised on the basis of cluster analysis. In addition to provide a quantitative equivalent to Bartlett and Ghoshal's (1989) conceptual industry classification, this paper examines the important but previously untested parameters of globalisation such as adaptation of marketing-mix and innovation, networking among subsidiaries and between the global headquarter and subsidiaries. The study is based on thirty-three responses from eighteen firms and nine countries. All the major automobile manufacturers from the US, the Europe, Japan, South Korea, and India were sampled in the study. The results of this study reveal that the auto industry operates in a multidomestic environment and thus the firms (except Daimler Benz, BMW and Toyota) adopt a country centered, multidomestic strategy to maximize their performance. The study makes a few theoretical and methodological contributions to the international marketing and strategy literature by adding new variables to two of the existing models (Bartlett and Ghoshal, 1989 and Yip, et al., 1988) of MNCs and a refinement because it uses empirical techniques like cluster analysis. This study used an in-depth interview method with the help of semistructured questionnaires, which were translated into different foreign languages. Method of 'back translation' was used to decode the data. The study also provides several useful implications for managers.

Key Words: International Marketing Strategy, Multidomestic, Global, Transnational, Standardization and Adaptation.

An Empirical Classification of the Global Auto Industry using Bartlette and Ghoshal and Yip Typology of MNCs

Since the publications by Bartlett (1986) and Prahalad/ Doz (1987), all authors implicitly or explicitly refer to a continuum of *integration/co-ordination/globalization* advantages versus differentiation/responsiveness/localization advantages in describing their strategy at either headquarters or subsidiary level. Following Prahalad and Doz, this continuum is referred to as the *integration/responsiveness* framework. Roth / Morisson (1990), and Ghoshal / Nohria (1993) use similar terms to describe the environmental pressures. Even the terms used by Porter (1986) and Doz (1980) are easily related to this continuum, with dispersed configuration/low co-ordination and political imperatives located at the responsiveness end and concentrated configuration/high co-ordination and economic imperatives, located at the integration end.

This research aims at studying the international marketing strategies adopted by the automobile firms and classifying the automobile industry into either Multidomestic or Global or Translational. These three types of firms are distinguished by nearly every study on the basis of their international marketing strategies: **Multidomestic** (combining low integration and high responsiveness), **Global** (combining high integration with low responsiveness) and **Transnational** (combining high integration with high responsiveness). The International firm does not fit easily in this scheme.

For this research, three types of firms are defined as under:

A **Global** firm is characterized as one which has standardized products, specialized activities like R & D performed only at the headquarter, uniform market positioning, and an integrated competitive strategy.

A **Multi-domestic** firm is defined as one in which the marketing-mix may be adapted to suit the needs of different markets, specialized activities performed at various locations, differing market positioning strategies in different markets, and different competitive strategy for each region or even country.

A **Transnational** strategy is a combination of both the strategies described above.

1. Research Problems Defined

The research aims at finding out if the global players in automobile industry consider the market as static and adopt a "global" strategy or consider it as dynamic and, therefore, adopt a "multi-domestic strategy".

2. Scope of Research

The research covers the international marketing strategies adopted by automobile firms in different countries. The study has covered eighteen firms from nine countries.

The international marketing strategies of a firm depend on the nature of industry the firm operates in – whether it is global, multidomestic or transnational. So this study also ascertains the nature (or type) of industry that auto industry operates in. In order to study the nature of industry and type of international marketing strategies adopted by the auto firms, the models used by Bartlett / Ghoshal (1989) and Yip, *et al.*, (1988) have been referred to.

3. Research Objectives

Given the discussion on the issues related to international marketing strategies of **auto industry**, this research aims at studying if the international marketing strategy adopted by the global auto industry is global, multi-domestic or a combination of both (transnational). Figure 1 below shows how the objectives are linked to each other and their role in designing the international marketing strategy of a multinational auto firm.



Figure 1: Graphical depiction of the Objective

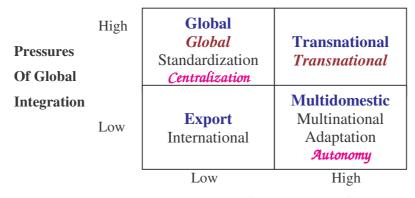
4. Hypothesis verified

The study verified a hypothesis that the automobile industry operates in a Multidomestic environment and not in a Global environment as commonly believed.

5. Literature Review:

5.1. Typologies of MNCs

Three types of firms are distinguished by nearly every study: Multi-domestic (combining low integration and high responsiveness), global (combining high integration with low responsiveness). The International firm does not fit easily in this scheme; it may be noted that it was not included in Bartlett's original classification. Some authors (Sundaram / Black, 1992) simply equate it with the Transnational Company, while other authors (for example, Ghoshal / Nohria, 1993; Welge, 1996) place it in the lower left corner (low integration/low responsiveness) as shown in Figure 2 below.



Pressures of Local Responsiveness

(Adapted from Porter, 1986; Prahalad and Doz., 1987; Bartlett and Ghoshal, 1987 a, b; Ghoshal and Nohria, 1993)

Type of MNC - Export, Multidomestic, Global, Transnational

Industry Environmen t-International, multinational, Global, Transnational

Marketing strategy - Standardization, Adaptation

Marketing structure - Centralization, Autonomy

Figure 2: Integration - Responsiveness Framework

Leong / Tan (1992) tried to test empirically Bartlett and Ghoshal's typology on a number of characteristics. They asked senior executives of MNCs to classify their organizations as being Multinational, Global, International or Transnational. They further asked them to evaluate their organization's configuration of assets and capabilities, roles of overseas operations and development and diffusion of knowledge. The Global and Multinational organizations scored broadly as hypothesized, but the International organizations did not differ significantly from each other and from the other organizations. Macharzina (1993) presented hypothesized levels of interdependence and application models of control mechanisms for MNCs, following various international strategies. Unfortunately, the results

- arrived at through cluster analysis - did not provide a clear-cut pattern. One of the four clusters that were found did not provide a clear structure at all and was not included in the further analysis; two other clusters were similar on many of the characteristics included. Finally, Wolf (1996) identified patterns of strategic orientation of both MNCs and subsidiaries and accompanying levels of certain control mechanisms. However, in the subsequent empirical analysis, little support was found for these ideal profiles.

In sum, empirical studies have not yet found clear-cut support for a well-developed typology of MNCs. Ghoshal / Nohria (1993) did not find support for a performance effect of a fit between environment and control. However, their typology focused on a limited number of characteristics only and their classification of the environment was based on relatively crude measures. The classification also was based on a relatively simple above-or-below-the-mean criterion that does not necessarily lead to maximizing inter-group and minimizing intragroup variability as cluster analysis would. Roth/ Schweiger/ Morrison (1990), also found support for a positive performance effect of a fit between (business unit) strategy and control mechanisms, but make a rather crude distinction between just two types of strategies and a high/low application of various control mechanisms. Leong /Tan (1992) did not find clear support of either the Transnational or the International type of firm and none of the German studies found support for their predicted patterns of strategy and control (Harzing, 2000).

5.2 Market Orientation or Responsiveness (the Standardization versus Adaptation Debate)

The degree to which international marketing programmes must be standardized or customized, has been a contentious issue for more than three decades now. A review of the pertinent literature identifies three schools of thought: the two extreme opposites of complete standardization versus complete adaptation and the "middle-of-the-road," or contingency perspective.

5.2.1 The Standardization School of Thought

The arguments in favour of marketing programme standardization, emphasizes on two main aspects. The first involves the drivers of standardization, defined as the developments in the international business environment that make standardization a feasible or even inescapable strategy. The second aspect refers to the potential advantages which result for a company that pursues a strategy of international marketing programme standardization - advantages that make standardization, a desirable alternative.

5.2.2 The Adaptation School of Thought

The adaptation school of thought emerged essentially as a reaction to the arguments put forward in favour of standardization. Many academics have expressed their disagreement with Levitt's (1983) argument about a worldwide homogenization in needs and preferences, viewing it as overly simplistic, myopic and contrary to the marketing concept (for example, Boddewyn/ Soehl / Picard 1986; Douglas / Wind 1987). According to these authors, no hard evidence can be produced in support of Levitt's thesis (Douglas / Craig 1986; Onkvisit / Shaw 1990; Wind 1986). Cross-cultural empirical research has found significant differences in customer characteristics, preferences and purchasing behaviour among different countries (for example, Diamontopoulos/ Schlegelmilch / Du Preez, 1995).

Second, critics of standardization have questioned the significance of economies of scale and the cost savings underlying this approach. Moreover, several authors have claimed that even when cost savings can be made, their effect may not be significant if a large proportion of the total cost is determined by factors on which standardization has no impact (for example, cost of raw materials and labour) (Douglas / Craig, 1986).

Third, according to critics of standardization, there is no evidence to suggest that customers have become more price conscious or that they are willing to trade off specific product features for lower prices. It has been argued that low price positioning is a vulnerable strategy that may not lead to the achievement of sustainable competitive advantage (Wind 1986; Douglas / Wind 1987).

5.2.3 The Contingency Perspective

Recent standardization literature has followed a more fruitful research avenue by supporting the contingency perspective of international marketing (for example, Cavusgil / Zou / Naidu 1993). According to this perspective, the difference between standardization and adaptation is in degree rather than in kind and the two perspectives are viewed as occurring along a continuum on a bipolar scale (Onkvisit / Shaw 1987). Therefore, the challenge facing international marketing managers is to decide which marketing-mix elements they should standardize or adapt, under what conditions and to what degree (Buzzell 1968; Jain 1989). The critical issue in designing international marketing strategies in the framework of contingency theory is to identify contextual factors that determine the appropriate degree of marketing programme standardization and determine which individual marketing-mix

elements are influenced by each factor and to what extent. In response to this challenge, academic researchers have examined the factors that play an important role in the determination of marketing programme standardization, and several classificatory schemes have been proposed (for example, Jain 1989; Cavusgil / Zou / Naidu 1993; Johnson / Aruthanes 1995; Agnihotri, 1997).

6. Research Methodology

6.1 Research Method

A popular method, most commonly used in international business research, is Case Study (Nohria and Ghoshal, 1997). However, since the researcher wanted to study the international marketing strategies adopted by the automobile firms, it was decided to adopt a survey method. This has not only helped "in overcoming the problem of small sample size" as in case study method but also gave an insight in the strategies adopted by eighteen automobile giants all over the world.

6.2 Study Design

The main objective of the study is to study the international marketing strategies of the auto firms. In order to achieve this objective, all the major automobile firms with global operations were contacted. In all thirty- three respondents from eighteen firms responded to the survey. This gave fairly large base of respondents, as almost all the major automobile firms participated in this survey.

6.3 Unit of Analysis

Different authors have given different opinion about the unit of analysis to be used in international strategy research. Some researchers like Porter (1986, 1990) consider industry as the appropriate unit of analysis. Several other researchers like Wernerfelt, (1984), Grant (1991), Prahlad, (1990, 1993), and Peteraf (1993) have used an individual firm as a unit of analysis in their international strategy research.

Since this research aims at studying the international marketing strategies of auto-firms and their impact on the global competitiveness of the firm, the unit of analysis had to be firm or to be still precise, the SBU. Various auto companies are present in different businesses. Suzuki, for example, manufactures two wheelers along with automobiles. So is the case with most other auto firms. In this study, we have concentrated only on the international

marketing strategies of automobiles which include passenger cars (including SUVs and MUVs)¹ and commercial vehicles like trucks, buses, etc. Hence, we have considered and concentrated only the automobile division and its performance. This ensured that the study measures the performance of all the SBUs on the same parameters. This also ensured that the data and the research design are as comparable as possible from one country to another (Craig / Douglas, 2003). As noted by leading researchers on marketing orientation and strategy, the SBU is a more appropriate focus than the organization as a whole, since "different SBUs of a corporation are likely to be market oriented to different degrees" (Kohli and Jaworski, 1990, p. 6). This design was similar to that of Hofstede's (1980) well-known study, where comparisons were made at the SBU level.

6.4 Sampling

Sampling in the international environment, needs to satisfy the same requirements as sampling in the domestic environment, but there are additional issues to consider, such as the balance within country representativeness with cross-national comparability (Reynolds, et al., 2003).

Since the study was aimed at automobile industry, the global firms in automobile industry were selected. All the major automobile firms were contacted. E-mail was sent to the global H.Q. of the firm requesting the H.Q to ask the subsidiaries to participate in the survey. In all, eighteen major automobile firms (which means almost all the global firm except BMW and Rovers) participated in the survey. Thirty-three valid useable responses were received and analysed.

6.5 Instrument Development and Refinement

The survey was conducted with the help of a semi-structured questionnaire. The questionnaire was divided into five sections. Except question number one, which was descriptive, all the other questions were objective. A seven-point scale was used to record the responses.

Whenever possible, the questionnaire was administered in a question answer form and after extensive discussion with the respondent. Interviews ran for about 45 to 90 minutes in length, averaging an hour. The semi- structured format provided the dual benefit of being as direct as possible and permitting unplanned questions and open-ended responses. The questionnaire

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¹ SUV stands for Sports Utility Vehicle and MUV stands for Multi-Utility Vehicle.

was pre-tested with three respondents, who were not included in the final sample, then revised for clarification, understanding of the respondents and ease of use.

Responses to close-ended questions were used to examine the hypotheses through cluster analysis. Answers to questions generated in the discussion were qualitatively analysed to understand the dynamics of international marketing strategy, and to identify facilitators and impediments. The combination of qualitative and quantitative approaches represented a mixed methodology design (Lee, 1999, p.19). The qualitative analysis followed recommended procedures (Miles and Huberman, 1984; Strauss and Corbin, 1998; Lee, 1999). The first step was to write field notes elaborating each interview immediately after it took place by "memoing", or drawing observations, insights, new questions or observations (Miles and Huberman, 1984, pp 69-71).

The questions asked in the questionnaire were based on the secondary data and the literature survey.

The questionnaire dealt with the three variables namely Marketing Mix Adaptation, Networking and Interdependence. Multiple rating scale was used to record the responses.

7. Findings and Analysis

7.1. Environment Auto Industry Operates in

Twenty-nine out of thirty-three respondents (87.88%) opine that the auto-industry operates in a Multi-domestic environment.

Following Bartlett / Ghoshal (1989), the main strategic thrust of Multi-domestic firms is "to respond to national differences". The firms which operate in a Multi-domestic environment find significant differences in customer characteristics, preferences and purchasing behaviour among different countries (Diamantopoulos, *et al.*, 1995). Certain external factors like environment, market, industry, etc. and internal factors like organisational structure and processes demand adapting the marketing mix to suit the differences in the country markets (Boddewyn, *et al.*, 1986). Such factors are responsible for mandatory adaptations, defined as the adaptations a company is obliged to make, because of either legislation and allied governmental regulations or inescapable and uncontrollable marketplace realities (Hill / Still, 1984).

Auto industry needs to adapt due to both the reasons-voluntary as well as mandetary, as mentioned above. In this industry, firms can save a lot of money by removing certain features, wherever the demand conditions and legal environment permit them to do so. In fact, this "adjustment" of features is a major source of product differentiation and pricing strategy (by cutting costs). One shining example of this is the absence of front and side air bags in most of the models launched in developing countries for lower end of the market. However, the same manufacturers while selling the same brand/model of automobile in Europe or in the North America have the air bags fitted as a standard fitting. This is due to safety regulations which make it mandatory for the manufacturer to fit airbags.

7.2 International Marketing Strategies of Auto-Firms

One of the objectives of this study was to examine the International Marketing Strategies of the automobile firms alongwith their choice (whether Global, Multidomestic or Transnational) of marketing mix strategy for their international operations.

The table 1 below summarises the hypothesized configurations of MNC and subsidiary strategy and structure.

TABLE 1: TYPOLOGIES OF MNCs

Q. No.	Organizational Strategy	M-D	G	T-N
12.	Co-ordination of Firm Activities			
	Marketing	Low	High	High
	Procurement	Low	High	Medium
	Production	Low	High	Medium
	R&D		High	Medium
13. a).	Interactions with Corporate or Regional HQ and			
	other country subsidiaries:			
	Sharing common goals	Low	High	Medium
	Sharing common values	Low	High	Medium
	Level of mutual trust	Low	High	M/H
	Level of co-operation	Low	Low	High
13. b).	Co-ordination for obtaining strategic marketing			
	information:			
	with corporate or regional HQ (dependence)	Low	High	Medium

	with other country subsidiaries			
	(interdependence)	Low	Low	High
	Total level of interdependence	Low	High	High
13. c).	Providing Strategic Marketing information to:			
	Corporate / Regional HQ	Low	High	Medium
	Other country subsidiaries	Low	Low	High
d).	Autonomy offered by HQ in making strategic	High	Low	Medium/
	marketing-mix decisions			High
e).	Employees primarily working in their home	High	High /	Low
	countries		Medium	
14.	International Marketing Strategies			
	Product customisation	High	Low	Med/ H
	Branding customisation	High	Low	M/H
	Product positioning customisation	High	Low	M/ H
	Pricing adaptation	High	Low	M/ H
	Advertising adaptation	High	Low	M/ H
	Sales promotion adaptation	High	Low	M/ H
	Local R&D	High	Low	High
	Human Resource policies customisation	High	Low	Med
	After sales service customisation	High	Low	Med/H
15.	Overall centralisation of International	Low	High	Low /
	Marketing Strategy			Medium
16.	Broad Product lines	High	Low	Medium

In Table 1, M-D means Multidomestic; G means Global; and T-N means Transnational

Since no questions were readily available to measure the corporate strategy, the researcher had to create his own set of questions, based on the characteristics of different types of firms as described in Bartlett / Ghoshal (1989, 1992) and Yip *et al.*, (1988). A seven point scale was used to measure whether the organisational policies / international marketing strategies were predominantly global or local and whether corporate strategy was focused on achieving economies of scale or local differentiation.

The table 2 is the reproduction of Table 1 with the mean levels of different variables for each of the organisation strategy element. The responses were measured on a seven-point scale that ranged from "Activities Co-ordinated locally" to "Activities co-ordinated globally" and "strongly disagrees" to "strongly agree".

The range of the means to determine the High, Low and Medium was finalized as per Bartlett and Ghoshal methodology, on the basis of 'below and above the means' which was as under:

Low: upto 3.59 that is below midpoint of the scale,

Medium: 3.60 –4.99 that is the mid-point of the scale, and

High: 5.00 and above that is above the midpoint of the scale.

Table 2 summarises the responses by using a simple above the mean and below the mean approach. Since 1 meant to be localisation and 7 globalisation (wherever it was a different norm, the score was appropriately reversed), a score below 4 (that is, the mid-point of the scale) was considered to be low and a score more than 5 was considered to be high. The range of 4 to 5 was specifically provided for all the 'other' responses.

TABLE 2: TYPOLOGIES OF MNCs

Q. No	Organisational Strategy	M-D	G	T-N
12.	Co-ordination of Firm Activities	1.61		
	Marketing	Low	High	High
		2.91		
	Procurement	Low	High	M/H
		2.18		
	Production	Low	High	Medium
			5.48	
	R&D	Low	High	Medium
13. a.	Interactions with Corporate or Regional HQ and			
	other country subsidiaries:		5.82	
	I) sharing common goals	Low	High	Medium
			5.85	
	ii) sharing common values	Low	High	Medium
			6.06	
	Iii) level of mutual trust	Low	High	M/H
				5.58
	Iv) level of cooperation	Low	Low	High

13. b.	Coordination for obtaining strategic marketing			
	information:		5.91	
	i) with corporate or regional HQ (dependence)	Low	High	Medium
	ii) with other country subsidiaries (interdependence)	2.76		
		Low	Low	High
13. c.	Providing strategic marketing information to: i)		5.97	
	Corporate / Regional HQ	Low	High	Medium
		2.61		
	ii) Other country subsidiaries	Low	Low	High
d.	Autonomy offered by HQ in making strategic	5.52		
	marketing-mix decisions	High	Low	Med//High
e.	Employees primarily working in their home	5.61	High /	Low
	countries	High	Med	
14.	International Marketing Strategies			4.42
	a). Product customisation	High	Low	Med / High
			2.73	
	b). Branding customisation	High	Low	Med/High
		4.88		
	c). Product positioning customisation	High	Low	Med/High
		5.97		
	d). Pricing adaptation customisation	High	Low	Med/High
		5.33		
	e). Advertising adaptation	High	Low	Med/High
		5.88		
	f). Sales Promotion adaptation	High	Low	Med/High
			2.21	
	g). Local R&D	High	Low	High
		5.12		
	h). Human Resources policies customisation	High	Low	Medium
		4.85		
	i). After sales service customisation	High	Low	Medium
15.	Overall centralisation of International	2.67		Low /
	Marketing Strategy	Low	High	Medium
16.	Broad Product lines	5.79		
		High	Low	Medium

8. Analysis of Findings

Table 1shows the characteristics the three types of international strategies adopted by the MNCs. A quick comparison of the same with table 2 clearly confirms what has been discussed earlier. Firms in automobile industry operate mostly in multidomestic industry. In most of the cases, their responses match with the theoretical predictions as mentioned in Table 1.

8.1 Organisational Design

Respondents in a firm with multidomestic strategy indicated a significantly higher disagreement with the statements that their firms share common goals with the global HQ. Employees of these firms work mostly in their home country. HCN (Home Country Nationals) is one of the characteristics of a multidomestic firm.

The subsidiaries have been offered a lot of autonomy (mean level 5.52 on a scale of 7). Information flow to the global HQ is high (mean 5.97) but to other country subsidiaries is significantly low (mean 2.6). Procurement (mean 2.91), production (mean 2.18) and marketing (mean 1.61) are coordinated locally in each country (foreign) market by the subsidiaries without much interference of the global HQ. R&D (mean 5.48), however, is coordinated globally. Table 8 in the annexure summarises the mean values of all the variables.

8.2 International Marketing Strategies

Firms with a global strategy offer standardised product with minimum or no adaptation (Levitt, 1983; Douglas / Craig, 1989; Keegan / Green (2000); Cavusigil / Zou / Naidu, 1993; Samiee / Roth, 1992; Szymanski; *et al.*, 1993; Jain, 1989). Product modification is indeed significantly more likely in subsidiaries of Transnational and Multidomestic firms (Harzing, 2000). Product positioning was found to be significantly higher (mean 4.88) and so was pricing and advertising adaptation (mean 5.97 and 5.33 respectively). A high mean score of 5.88 for sales promotion would indicate that the sales promotion strategy would vary from country to country. Surprisingly, local R&D had a low mean score of (2.21) indicating a tilt towards centralisation of R&D. This may be due to high set up cost and capital intensity that the R&D is controlled globally in the auto industry. This has also reflected into a moderately high mean score (4.42) for product customisation. Product customisation is not an easy and inexpensive process in automobile industry. However, it is done by "adjusting" certain

features like airbags, etc. as mentioned previously. Both, statutory (like safety and emission norms) and local demand conditions (such as preference for features like, two door, hatchback, power, auto versus manual transmission, etc) must be kept in mind while modifying products in this industry.

Price is customised by "adjusting" features. In less developed countries like India, Bangladesh, Thailand, etc. several safety features like airbags are compromised with to lower the price of the automobile. The quality of steel used is also inferior, the instrument pannel and several other accessories which are part of a standard vehicles are offered as "add ons".

Advertising, sales promotion and product positioning are considered to be "country-market specific" strategies. Except for the firms like Daimler-Benz, BMW and Toyota who cater to a global segment, all the other auto firms adapt their positioning and advertising and sales promotion strategies to suit the individual country market.

8.3 Interdependence

Interdependence is judged by the interactions that a firm has with its HQ (dependence) and with other country subsidiaries (interdependence). A multinational firm has minimum interdependence compared to a global or multidomestic firm. Surprisingly, the mean levels for all the dependence interaction variables was significantly high for the auto industry. Only for interaction with other country subsidiaries (interdependence), the mean level was low (2.76) indicating that there is significantly low interdependence among country subsidiaries. This may be because of the nature of industry. Both the earlier studies, namely Bartlett and Ghoshal's and Yip's, on the basis of which these questions were asked were conducted across the industries, while this study was specifically for a particular industry where the dependence on the Global or Regional HQ is comparatively larger. As seen earlier, the R&D is controlled centrally in auto industry; so for strategic information on new product development as well as modifications to the existing product lines, firms depend on the global HQ who monitors the R&D. Secondly, the questions asked in the two studies sited earlier were of general nature such as "sharing common goals with HQ", "sharing common values with HQ", "Level of mutual trust" and "Level of cooperation". Being a subsidiary, the answers tended be "high" for these questions.

This analysis reveals a story, which suggests that auto industry cannot be clearly categoriesed under either multidomestic or transnational. It falls somewhere in between, but surely, it is not global.

This segment can be termed as "Contingent" as the exact location depends on several factors such the market, technological, and economic.

To confirm this understanding, a cluster analysis was performed by taking the marketing-mix elements as variables and the responses were grouped under three clusters namely Global, Transnational and Multidomestic.

8.4 Cluster Analysis

Mean values of the data were calculated. Table 1 has summarized the hypothesized configurations of MNC and subsidiary strategy and structure. On the basis of that, in Table 3 below, following guidelines were fixed to decide the basis of clustering:

Table 3: Mean Scores as a basis of Clustering

Type of Industry	Marketing-mix	Marketing-mix
	Adaptation	Adaptation
Global	Low	Low
Multodomestic	High	High
Transnational	Any other	combination

Since the subsidiaries of MNCs following global strategy would score lowly on adaptation and autonomy in marketing mix decision-making but will have high networking with HQ, the firm would be clustered as having global strategy if its score is lower or higher than the median score. Similarly, basis was used to clarify the Multidomestic firms. Since transnational firms represent a combination of both attributes, all the other combinations were classified as transnational. This is shown in Table 3.

It was observed from the data that though 87.88% of the respondents had preferred to classify their firms as Multidomestic in specific response to question number 2, the researcher decided to cross-check their belief through their responses to specific questions on the marketing mix elements. Table 4 shows the cluster cross tabulation on the basis of both these criterion:

Table: 4: Cross-tabulation on the Basis of Responses

	Global	Multidomestic	Translational	Total
Global	2	1*		3
Multidomestic		29	1*	30
Transnational			2	2
Total	2	30	3	35

It is interesting to observe that the firms classified as global remain the same (Count as well as the responses). This confirms what had been said earlier about the global firms. The variation is observed in the case of transnational and multidomestic firms. Two responses marked by * were rejected from all the analysis as there was a disparity between the claimed strategy and the subsequent responses to individual items. Remaining thirty-three responses which matched the criteria were retained for the analysis.

To compare each pair of clusters and observe if there is significant difference between the three types of firms with regard to the three variables (namely adaptation, and marketing-mix decision-making: autonomy vs. centralisation, and innovation), Anova with Post HOC Test by Duncan was run. Tables 6 and 7 show the results for each variable.

Table: 5: Scores of the Three Clusters on the Four Strategy Variables

Cluste	r Name	Marketing-mix	Innovation	Marketing-mix	Networking			
		Adaptation		Adaptation				
Global		25.70	22.39	23.77	24.87			
Multidomestic		34.91	35.14	35.17	12.84			
Transnational		31.99	29.73	29.87	17.69			
	F	15.603	40.091	5.360	7.497			
]	p	.000	.000	.010	.002			
Signif	ficance	S	S	ns	S			
Note:	Note: Values scored by the same (vertical) line are not significantly different at a 0.05 level of significance. s stands for significant.							

A quick comparison between Table 3 and Table 5 shows how closely the results conform to the conceptual typology. The first group labelled 'Global' combines low scores on adaptation; innovation and marketing mix decision (autonomy vs. centralisation). A low score on marketing mix decision-making at the subsidiary level indicates a clear tilt towards centralisation in decision-making, which is the central theme of globalisation. The score of networking for these firms is the highest. The second group labeled 'Multidomestic' has exactly the opposite profile. It scores highest on adaptation, innovation and marketing-mix decision-making indicating maximum autonomy to the subsidiary in deciding its marketing-mix. It scores lowest on the networking suggesting minimum interaction between the HQ and its subsidiaries. All differences between the Global and Multidomestic clusters are significant at 0.001. As expected, firms in the 'Transnational' cluster fall between the Global and Multidomestic firms. They are closer to the Multidomestic firms with regard to adaptation.

To compare each pair of clusters and observe if there is significant difference between the three types of firms with regard to the four variables (namely adaptation, innovation, marketing-mix decision-making autonomy vs. centralisation, and networking) Anova with Post HOC Test by Duncan was run. Tables 6,7, 8 and 9 show the results for each variable.

Table 6 shows the results of three clusters with respect to 'marketing-mix adaptation'.

Table 6: Marketing-mix Adaptation

Clust	ter	Product	Price	Promotion	Distribution	Marketing	Marketing	
						Strategy	Policy	
Glob	oal	2.90	3.91	4.60	5.21	4.60	4.48	
Transna	tional	3.89	6.09	5.40	5.92	5.66	5.48	
Multidon	mestic	3.54	6.79	5.25	6.72	6.13	6.21	
F		.629	12.441	3.507	9.517	6.481	7.099	
P		.540	.000	.043	.001	.005	.003	
Resu	ılt	ns	S	ns	S	S	S	
ns: not significant; s: significant at 0.05 level						el .		
Note: Values covered by the same line are not significantly different at a 0.05 level of								
	significance.							

It is clear from Table 6 that there is no significant difference between the three types of firms with regard to product adaptation; however, the global firms are significantly different from transnational and multidomestic firms as far as the other marketing mix elements are concerned.

Table 7 shows the results of three clusters with respect to marketing-mix innovation.

Table 7: Marketing-mix Innovation

Cluster	Product	Price	Promotion	Distribution	Marketing	Marketing	
					Strategy	Policy	
Global	2.29	3.14	4.49	4.57	4.14	3.76	
Transnational	3.87	4.98	5.12	5.31	5.43	5.02	
Multidomestic	4.04	6.42	6.27	6.44	6.05	5.92	
F	2.676	15.63	13.855	9.919	16.870	10.325	
P	.085	2	.000	.000	.000	.000	
		.000					
Result	ns	S	S	S	S	S	
ns: not significant; s: significant at 0.05 level							
Note: Values covered by the same line are not significantly different at a 0.05 level of							

Values covered by the same line are not significantly different at a 0.05 level of significance.

As seen in Table 7, the multidomestic firms are significantly different from the global firms on all the marketing-mix variables except the product innovation. The transnational firms fall between the global and multidomestic firms. However, the global and transnational firms are significantly different from multidomestic firms as far as Marketing-mix Promotion and Distribution are concerned.

Obviously in auto industry, no single subsidiary can have a full-fledge R&D for product innovation. Product innovation is handled jointly by the subsidiaries and HQ mainly due to high cost involved.

Table 8 shows the results of three clusters with respect to Marketing Mix Decisions (Autonomy vs Centralisation) variable.

Table 8: Marketing-mix Decisions (Autonomy vs. Centralisation)

Cluster	Product	Price	Promotion	Distribution	Marketing	Marketing		
					Strategy	Policy		
				1				
Global	2.00	3.24	4.69	4.93	4.77	4.14		
Transnational	3.09	5.33	5.14	5.90	5.10	5.30		
Multidomestic	3.50	6.67	5.70	6.97	6.25	6.08		
F	2.302	10.469	1.285	4.097	2.956	3.715		
P	0.117	.000	.292	.027	.067	.036		
Result	ns	S	ns	ns	ns	ns		
	ns: not significant; s: significant at 0.05 level							
Note:	Values co	Values covered by the same (vertical) line are not significantly						
	different	different at a 0.05 level of significance.						

Table 8 shows that clusters for product and promotion and distribution decisions are not significantly different from each other. Same is the case with marketing strategy and marketing policy decisions. In case of pricing decision both Multidomestic and Transnational firms are different from the Global firms.

Table 9 shows the results of three clusters with respect to Marketing Mix Networking variable.

Table 9: Networking

Cluster	Product	Price	Promotion	Distribution	Marketing	Marketing		
					Strategy	Policy		
		1						
Global	3.19	4.10	4.20	4.46	4.40	4.52		
Transnational	3.33	2.89	3.04	2.63	2.91	2.89		
Multidomestic	3.42	1.88	2.53	1.09	1.80	2.13		
F	.037	3.680	4.687	9.331	7.977	5.173		
P	.967	.037	.017	.001	.002	.012		
Result	ns	ns	ns	S	S	ns		
	ns: not significant; s: significant at 0.05 level							
Note:		Values covered by the same (vertical) line are not significantly different at a 0.05 level of significance.						

Again, the firms in all the three clusters are not significantly different as far as product and pricing decisions are considered. However; the Transnational and Multidomestic firms are significantly different from the Global firms in all the other variables with regard to the Networking.

In summary, it may be said that this confirms what the descriptive statistics has revealed earlier. The international marketing strategies of auto-firms fall between multidomestic and transnational categories. This is mainly due to the high cost of product adaptation and the wide gulf in purchasing power in developing and developed countries. These two forces coupled with high cost of product development pulls auto industry in two different directions. On one hand, there is a need to lower the cost and price of an automobile to increase market share especially in developing countries, on the other hand, the cost of adaptation may lead to substantial increase in cost of new product development. Thus, they aim at standardising the products, by standardising the manufacturing practices, wherever they can and achieve economies of scale. However, to lower the cost (and of course, price) they adapt the product by "adjusting" the features, wherever, the external (legal and political) factors allow them to do so. This is the main reason why Tables 6,7, 8, and 9 fail to show a significant difference in the product strategies of the three types of firms with respect to the four variables and six marketing mix elements considered in this study. However, there is a significant difference between the Global firms and the Multidomestic and Transnational firms as far as overall adaptation strategy is considered (15.603, .000; Table 5). In conclusion, it may be said that the auto industry practices 'Think Global, Act Local' strategy by standardising whatever it can and adapting whatever it must.

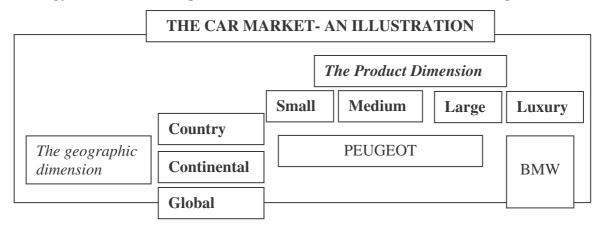
9. Conclusion

Overall, the results of the empirical analysis of this study provided a high level of support for our hypothesized typologies.

In many ways Multidomestic firms are the reverse of Global firms. Products are differentiated to meet differing local demands, and policies are differentiated to conform to governmental and local market demands. Local demand is determined by cultural, social, competitive and political differences among countries. The firm can be characterized as a decentralized network. Subsidiaries are responsive to the local market and adapt both products and marketing to local circumstances. This adaptation is made easier because products often are produced locally and contain a large proportion of locally made inputs.

Subsidiaries operate relatively independently from other subsidiaries and especially from the global or regional HQ in a sense that they buy/sell a very low proportion of their inputs/outputs from the HQ or other subsidiaries.

In sum, it may be said that the results of this study based on Yip's and Bartlett and Ghoshal's typology, reveal that the auto industry operates in a Multidomestic environment and thus, the firms (except Daimler-Benz, BMW and Toyota) adopt a country-centred, multidomestic strategy to maximise their performance. It can be illustrated as follows in Figure 3 below:



Source: Kay J.A. (1990) Identifying the strategic market. Business Strategy Review, Spring, 2-24.

Thus, the findings of this study match with the previous research / thinking on the subject. Kay in this example shows how the auto firms compete either by differentiating across product classes or focusing within a product segment as does BMW, for example, in luxury cars. This also ties in with Porter (1990) who uses similar examples in talking of competitive scope and different paths to globalisation. These findings are in agreement with the two studies conducted by Porter (1986) and Makhija, *et.al* (1997) where the researchers had concluded that the US Automobile industry adopts a multidomestic approach.

10. Contributions

This study makes several theoretical and methodological contributions to the international marketing and strategy literature.

10.1 Theoretical Contributions

The study was based on Bartlett / Ghoshal's (1989) and Yip *et al.*'s (1988) models of MNCs. Thus, a more comprehensive and holistic model of international marketing strategy was developed by integrating key conceptual frameworks from the available literature.

The framework developed in this study is a major advancement over as well as refinement of the models prescribed by Bartlett and Ghoshal, and Yip *et al*. They did not consider the role of external environment on the firm's performance. It is advancement because it takes the two existing models further by adding new variables and a refinement because it uses empirical techniques like cluster analysis, and t-test rather than only the above the means and below the means approach as adopted by Bartlett and Ghoshal. A firm, whether in purely national market or in international markets, cannot ignore the importance of government policies.

The findings will certainly help the marketing managers from automobile industry to improve the competitiveness of their firms.

10.2 Methodological Contributions

The methodology used here may also help to shed light on conflicting findings for the causes of globalization in prior studies. One set of studies has found that scale economies, important in fostering product standardization, are associated with globalization (Kotabe / Omura 1989; Morrison / Roth 1992; Roth / Ricks 1994), whereas other studies find that technological intensity within the industry is a more relevant factor in bringing about globalization (Cho 1990; Kobrin 1991; Kotabe / Murray 1990). These apparently contradictory results may in fact, stem from a failure to differentiate global environments. For example, at the initial stages of globalization (that is simple globalization), scale economies may play a particularly important role due to the importance of product standardization in creating global markets (Levitt 1983). At more advanced stages of globalization (that is, integrated globalization), technological intensity takes on greater importance as increased competition and need for local responsiveness lead to product differentiation strategies (Bartlett / Ghoshal 1989; Porter 1986; Prahalad / Doz 1987). The relative importance of these two attributes may therefore vary with the level of globalization of the industry. Importantly, this issue points to the need for a closer examination of the factors associated with different levels of globalization, as done in the present study.

Most of the studies in the area of international marketing strategy area use mail survey. This study, however, used an in-depth interview method with the help of a semi-structured questionnaire, which was translated into different foreign languages (such as German, Italian and French). This lead to perfection in data collection. This perfection was reflected into collection of accurate data. As mentioned earlier only two responses had a deviation among

them and had to be discarded. This enhanced the quality of results. Moreover, the multilingual survey encouraged a good response, though limited geographically, to few but relevant countries. This (back translation) method of translation is the best-known and most popular method in educational testing and psychological measurement (Brislin, 1980; Hambleton, 1993, 1994). It is used by both, academics and marketing research companies (Craig and Douglas, 2003).

Lastly, since the study was based on a single industry, the sample chosen was 'homogeneous' and 'relevant'. This leads to generalisation of research results being valid (Reynolds *et al.*, 2003).

11. Implications of the Study and Recommendations

In addition to the theoretical and methodological contributions, the study provides several useful implications for managers. Of paramount importance is the recognition that globalized or customized strategies are means rather than ends of international marketing strategy. Executives need to understand the eminence of their marketing strategies in contributing to a firm's competitive advantage. There is no simple panacea for success. Whether a firm follows a global or multidomestic strategy is contingent on its environment. No matter how powerful the arguments of the proponents of globalisation or adaptation are, the necessity to achieve a higher competitiveness is a more meaningful goal.

In building a firm's competitiveness, this study emphasizes the need for marketing managers to pay **particular attention to marketing-mix components** that have the greatest impact on the firm's success (performance) in the overseas market. Product and price adaptation is a key to success in auto-industry. They need to assess how foreign markets respond to different components of their strategies in general and product and pricing strategies in particular. In the future, marketing manager's job will become more demanding. Only when a firm establishes a competitive advantage over its competitors, success will follow.

Marketing-mix adaptation has a significant positive impact on the sales growth (in units) and the profitability. The managers must consider the local customers' needs and requirements while planning any new model of the automobile, and as far as possible resist the temptation of launching the same model which was successful in the home country, unless the marketing research says so. Many models, which are so successful in the home country-market, fail in the host country market. This is especially true in case of commercial vehicles. Volvo is a

shining example. Volvo tried to launched a very high end range of commercial vehicles (market price in 1998-99 of the lower end vehicle of the range was between Indian Rs.2,500,000 to Indian Rs.2,700,000). The product failed to achieve even a moderate success in the Indian market. They modified the product and launched a range of chassis specifically adapted for the Indian road conditions and purchasing power and these new products are accepted much better. They are purchased by the private transport operators and ply as private tourist buses between important destinations. These services are marketed as "by Volvo bus" and the fare fetches a modest 25 percent to 30 percent premium, and with better capacity utilization.

The results of high level of **centralisation in marketing-mix decisions** suggest the existence of limits of globalisation. In this case, centralisation in decision-making has failed to provide a significant impact on any of the four performance variables. The negative or no relation between centralisation and firm performance occurs as a consequence of relying excessively on attributes of a global strategy. Managers must realise that moderate levels of global integration results in obtaining an adequate balance between subsidiary specialisation and the controls required to effectively monitor and coordinate resources across the global network. This balance enhances subsidiary initiatives and supports creating a dynamic context promotion flexibility and adaptation across the nodes of the global network.

The study is designed to understand how firms operate and perform after they enter foreign markets. No matter how carefully managers plan their strategies at the time of entry, the findings in this study suggest that subsequent modifications (to product and or price) and adaptation of marketing policies are inevitable to maintain their firms competitiveness. As global social, economic and technological forces offer strong influence on the global markets, the ability to acquire new competencies through continuous innovations and adaptation may decide a firm's survival and success.

In sum, the results of the present study substantiate the conclusion drawn in previous empirical research (Cavusgil / Zou, 1994) that success in international markets is within the reach of management. Despite the existence of a large and complex set of factors that influence international business activities, managers may be able to enhance the performance of their firms by formulating and implementing marketing programmes that match the environmental and market conditions of each foreign market targeted.

Overall, the findings provide useful guidelines to MNC managers for more efficiently managing their international marketing activities.

12. Limitations of the study

- The sample distribution was quite uneven. The responses were received from India, USA, France, Sweden, Germany, Thailand, Singapore and South Korea. Due to various difficulties, only thirty-three useable responses were received on which analysis is based on.
- The study focused only on the international marketing strategy aspect (and two
 organizational aspects). Other areas like changes in organization structure, systems and
 processes were not looked at. A more holistic picture of the entire international business
 strategy could have been obtained by including these dimensions.
- The study is based on a single industry- the automobile industry. Several findings from our study are specific to the characteristics of the auto-industry only. A cross-industry study including other manufacturing and service sectors would have helped in generalizing the findings of the study.
- The evidence of cross-country differences in industry globalization indicates the need to study cross-country differences in firm strategies.

13. Directions for Future Research

(1) The study opens several directions for future research. First, it reinforces the need to assume a broad strategic orientation in attempts to understand firms' international marketing strategies. As pointed out in previous studies (Cavusgil / Zou / Naidu 1993; Douglas / Craig 1989), international marketing strategy is part of a firm's strategic plan and should be studied accordingly. In this regard, this study attempts to start building this crucial link.

Future research efforts are needed to understand how marketing strategies complement firm's other functional strategies, such as global production plans, human resources policies, and financial strategies, in developing their competitive positions in overseas market, especially if researchers are to understand what determines firm performance, such as firm profitability. Recent discussion on the theories of firm competition (Deligonul / Cavusgil 1997) in the marketing literatures may offer the needed paradigms in this direction.

- (2) Second, this study does not attempt to investigate internal organizational processes that underline firm's strategic formation process. More effort is needed to delineate further the complex internal processes, including (i) how firms incorporate changes in overseas markets, (ii) how firms respond to competition in their local markets, and (iii) how strategic decisions in subsidiaries are established in coordination with firms' overall global plans.
- (3) An inter-firm comparison of marketing-mix as well as international business strategy of all the auto-firms and an analysis of its impact on business performance can also be undertaken by the future researchers.

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Appendix:

Mean Lo	Mean Level on 7-point scale							
Marketing Mix Items	Adaptation	M. Mix Decision	Networking					
PRODUCT	3.323	2.960	3.323					
Product Brand Name	1.82	2.00	2.45					
Product Design	3.42	2.91	3.30					
Product Range	4 73	3.97	4.21					
PROMOTION	5.261	5.182	3.164					
Advertising Copy	5.30	5.36	3.00					
Advertising Theme	4.55	4.61	3.61					
Media Mix	5.48	5.21	2.88					
Sales Promotion	5.67	5.58	3.06					
PRICE	5.798	5.212	2.90					
Retail Pricing	5.73	4.73	3.15					
Price Discounting	5.82	5.39	2.70					
Customer Credit	5.85	5.52	2.85					
PLACE	5.992	5.955	2.644					
Channel Decisions	6.12	5.97	2.70					
Inventory Management	5.76	5.82	2.58					
Physical Distribution	5.88	6.03	2.48					
Sales Force Decisions	6.21	6.00	2.82					
MARKETING STRATEGY	5.546	5.309	2.958					
Product Positioning	5.30	5.15	3.27					
Market Segmentation	5.52	5.24	3.21					
Choice of Target Segments	5.39	5.21	3.06					

MARKETING POLICIES	5.444	5.242	3.051
Marketing Budgeting Decisions	6.06	5.33	2.82
Marketing Research Decisions	5.42	5.42	2.64
Marketing Personnel Performance	4.88	4.85	3.61
Evaluation Decisions			
Marketing Personnel Selection	5.91	5.39	2.76
Decisions			
Marketing Personnel Training	5.55	5.48	2.79
Systems			
Marketing Policy Decisions	5.33	5.33	3.06