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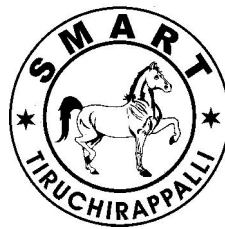
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# THE INFLUENCE OF BUSINESS STRATEGY ON THE PERFORMANCE OF AUTOMOTIVE INDUSTRY IN INDIA

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## **Abstract**

*Miles and Snow's Strategy Typologies have been widely employed to describe various business strategies within a given industry and its relationship with performance as well. Numerous empirical studies have been conducted abroad on strategy-performance relationship. No research has been carried out on this topic related to Indian Automotive Industry. This study explicitly investigates the relationship between strategy and performance of automotive companies in India. Findings are drawn from the analysis of the primary data collected from CFOs representing 18 automotive companies operating in India and secondary data collected from CMIE and Prowess Data Base. The finding of the Study is that the performance of Indian automotive companies does not vary with the types of business strategy adopted by them.*

**Key Words:** Business Strategy, Performance, and Indian Automotive Industry

## **1. Introduction**

Today's business is highly complex in nature. Irrespective of the size and nature, companies do practise some form of strategic management to formulate and implement strategies in order to be successful in this globally competitive and rapidly changing business environment. Each company follows a strategy in its efforts to achieve the goal. Strategies spell the fundamental steps to be followed by a company and give directions in its process of effective and efficient resource allocation. Each company can have a single or multiple strategies and it may be at three different level viz., business level, corporate level, and functional level. This study focuses on the strategies followed by automotive companies at the business unit level.

Majority of researches on business strategy have sought to validate and test one of the two schools of thought viz. typology developed by porter's (1980) differentiation and low cost strategies and Miles –Snow's (1978) typology

of Prospector, Analyser, Defender, and Reactor Strategies. Depending on the strategy adopted, a company may give emphasis to one or more of the following aspects such as technological position, innovation, organisational design, and so on. These aspects largely determine the firm performance and efficiency of business (Slater and Narver, 1993). Considerable attention has been focused on the strategy and performance relationship (for example, Hambrick (1983 & 2003), Tim blumentritt and Danis (2006), Antonio Aragon-Sanchez and Greorio Sanchez Martin (2005), Ho and Pike (1998), Ramaswamy and Thomas (1994 & 1996), Pleshko (2007), Short, Ketchen, and Palmer (2007), Kitima Tamalee et.al., (2008), Parnell (1997), Weston and Tang (2006), Smith et.al (1989), Jennings et al (2003),) and others.

We could find disparate results towards the relationship between these two variables i.e. strategy and performance. Therefore, we are interested in investigating how business strategy influences the performance of automotive

industry in India. Specifically, it is intended to examine whether the performance of automotive companies varies with the business strategy adopted by them.

## 2. Background and Rationale of the Study

Over the years, research on strategy and performance relationship is well documented in many countries. Findings of the previous research indicate disparate results. For example, Namiki (1989), Parnell (1997), Jennings et.al (2003), Tamalee et.al., (2008) found that there is no significant difference in performance among the firms that followed four different strategies of firms. Contrary to the above findings, Smith, Guthrie and Chen (1989) found that the four strategies resulted in significant differences in performance on all measures. Parnell and Wright (1993) showed that for a single industry, Prospectors outperformed other strategists in terms of sales growth but Analyzers performed better in terms of returns on assets. Mohd Khairuddin Hashim et.al (2003 & 2000) adopted Porter's Model and found that the performance of SMEs varies with their choice of business strategy. Therefore, it is clear from the above discussion that previous empirical researches have not arrived at a consensus with reference to the definite relationship between business strategies and performance or which strategies are the best.

## 3. Research Hypothesis Development

The basis of contingency theory is that the survival and effectiveness of an organisation depends on how well its strategy, structure and context fit one another. For withstanding the uncertainties of the global financial crises, it is better for automotive companies to understand the relationship between strategy and performance. It is helpful to formulate the best strategy in order to perform in the best possible manner even at crises scenario. Based on this need, we present the research model of the present study in figure 1. In order to test the

proposed relationship between business strategy (using Miles and Snow typology, 1978) and performance, this study developed the following hypothesis:

§ The performance of Indian Automotive Companies varies with the types of business strategy adopted by them.

While formulating the above hypothesis, it is assumed that the company will be categorised as applying only one type of business strategy (i.e. Prospector, or Analyser or Defender) and not mixed strategies.

## 4. Methodology

**4.1 Data :** This study used both types of data. The primary data were collected through questionnaire. The questionnaire was adapted from Ho & Pike (1998) with a few modifications made to incorporate the forces present in the Indian environment and the objectives of the study as well. There are 500 automotive companies operating in India, of which 146 companies are listed and traded companies in NSE and BSE (The information was collected from CMIE, Prowess Data Base on 28<sup>th</sup> August 2008). This is used as the sampling frame of this study. From the above stated database, we could obtain the names of senior finance professionals through the company's annual reports and their website concerned for 60 companies only. The questionnaire was addressed to the senior finance professionals (CFO, General Manager-Finance, Vice President-Finance, Controller etc.) of 60 companies along with a covering letter which served as an introduction to the purpose of the Survey and assured the confidentiality of the information supplied by each respondent. After reminders through mail and telephone calls, assistance from friends and colleagues, we received 18 questionnaires (a response rate of 30 per cent). The response rate was better than other previous studies (20 per cent of Ashish Kumar & Bhavin Shah (2006), 15.43

per cent of Manoj Anand (2002) and nine per cent of Graham and Harvey (2001)).

## 4.2 Variables of the Study

**4.2.1 Business Strategy :** This study used the business strategy types as conceptualised by Miles and Snow (1978). Following Ho and Pike (1998), we used a self typing method whereby senior professionals responded to our survey items designed to tap the fundamental distinctions between strategic types (Note that the instrument used by Ho and Pike was adopted from Haka's (1987). A survey instrument consisted of four items to measure the strategic types of each firm based on Miles and Snow Typology. We grouped the respondents into three groups based on the summed mean score for the items used to measure the Miles and Snow Typology.

**4.2.2 Performance :** Although many studies have found that different companies in different countries tend to emphasize on different performance measurement, the literature suggests financial profitability and growth to be the most common measures of organizational performance. This Study used three financial performance measures, namely, Returns on Assets (ROA), Returns on Net Worth (RONW), and Sales Growth, for the 5 year period (FY 2003-04 to FY 2007-08). The data were collected from the annual reports provided by CMIE, Prowess Database. Returns on Assets (ROA) were calculated for each company using the formula : EBIT divided by Average Total Assets, multiplied by 100 for each year. Then the results were totalled and divided by the number of years (five) to obtain the average value.

The second measure of performance used by this Study was Returns on Net worth (RONW). Returns on Net Worth was calculated for each company using the formula: Net profit/loss divided by Net Worth, multiplied by 100 for each year. Then the results were

totalled and averaged as mentioned above. These two ratios are used to represent the firm's profitability. The third measure of performance used is Sales Growth. Sales Growth was calculated by using the formula : t year's sales minus the t-1 year's sales, divided by t-1 year's sales and then multiplied by 100. The results were totalled for each company and averaged as mentioned above. The average figure was used to represent Sales Growth for each firm.

**4.3 Hypothesis Testing :** In order to test the hypothesis, Cluster Analysis was used to classify the companies based on the strategy followed by them and Discriminant Analysis was used to confirm whether the companies belonged to the right group. Further we employed one way- ANOVA to examine whether firm's performance will vary with its choice of business strategy adopted. This analysis was made with the help of SPSS package.

## 5. Results

**5.1 Respondent Characteristics :** Majority of respondents were General Manager Finance (27.78 per cent), followed by Vice President –Finance (22.22 per cent), Financial Controllers (16.67 per cent), Senior Manager-Finance (16.67 per cent), CFOs (11.11 per cent), and Executive Director (5.56 per cent). This data has been presented in Table 1. Majority of respondents had an accounting and finance (ICWAI, CA, ACS etc) background/qualification (92.30 per cent), while others had a background in Arts, Science and Management. Majority of respondents had held different positions and responsibilities during their career (92.30 per cent). Also they had experience in different industries and sectors as well (69.20 per cent).

**5.2 Classification of Firms' Business Strategy :** We employed Cluster Analysis to classify the companies into different strategy

groups. Business strategic practices were classified into Clusters by Hierarchical Cluster Analysis using Ward's method along with Squared Euclidean Distance. The Clusters were labelled as follows :

- § the group with the highest summed mean score was labelled Prospectors
- § the group with the second highest summed mean score was labelled Analyzers
- § the group with the lowest summed mean score was categorised Defenders

Therefore, eighteen companies were categorised into three clusters. Table 2 exhibits the results of Cluster Analysis. Cluster 1 (13 companies) had the highest summed mean score of 17.09 and were labelled as Prospectors. Cluster 2 (3 companies) had the second highest summed mean score of 15 and they were labelled as Analysers. The cluster 3 (two companies) had the least mean score of 9 and were categorised as Defenders.

In order to confirm the above classification of firm strategies, we used Discriminant Analysis and the results are shown in **Table- 3**.

With the help of Cluster Analysis, out of the 13 firms identified as users of Prospector Strategies, 92.3 per cent were confirmed to their use of Prospector Strategies while 7.7 per cent of them were actually using Defender Strategies. Thus, there was a misspecification of 7.7 per cent. Those companies identified as Analyzers (3) and Defenders (2) were 100% correctly specified. The number of firms belonging to each strategy group was changed accordingly. The revised numbers of companies are Prospectors 12, Analyzers 3 and Defenders 3.

**5.3Performance :** The average mean and standard deviation (SD) scores of the performance measures of the firms surveyed are presented in **Table- 4**.

**5.4Relationship between business strategy and performance :** In order to examine the variation in the influence of business strategies on performance, we conducted the one-way Analysis of Variance (ANOVA) i.e. whether firms using different business strategies (Prospector, Analyzer, and Defender) exhibit different performance (Returns on Net Worth, Returns on Assets and Sales Growth). **Table- 5** shows the results of ANOVA between business strategies and Returns on Net Worth. The results revealed that the Returns on Net Worth of firms using different business strategies did not show any significant difference in terms of Net Worth  $F(2,15) = 0.50, p > 0.05$ . The test also revealed similar results for Sales Growth and Returns on Assets i.e. no significant differences between firms using the different strategies ( $F(2, 15) = 0.169, p > 0.05$  and  $F(2, 15) = 0.563, p > 0.05$  respectively. In simple words, the results revealed that the performance of Indian automotive companies did not vary with the types of business strategy adopted by them.

However, on closer examination of the results, we find that there are some differences in performance between firms adopting different strategies (**see Table- 6**). On Returns on Net Worth, firms using Prospector Strategy scored the highest mean with 26.93 per cent of them followed by Analyser firms with 24.80 and Defender firms scored the lowest with 16.53 per cent. This is similar to other performance measures. On Sales Growth, the Prospector, Analyzer, Defender firms scored means of 116.98, 22.87, and 19.46 per cent respectively. On Returns on Assets metric, the Prospector, Analyzer, Defender firms scored means of 34.28, 25.63, and 18.75 per cent respectively. It could be seen that Prospectors and Analyzers scored the highest on the three measures of performance measures while Defenders scored the lowest on all the three measures.

## 6. Discussion and Conclusion

This paper examined the relationship between business strategy and performance of Indian Automotive Industry. The result shows that there is no significant difference of performance among the users of three business strategies. It shows that the findings are quite opposite of Namiki's (1989) and Parnell's (1997) findings. Further, respondents were classified into three groups instead of four groups with the help of Cluster Analysis and confirmed with the help of Discriminant Analysis. The majority of respondents adopt Prospector Strategy. However they could not exhibit the differences in terms of performance compared to Analysers and Defenders.

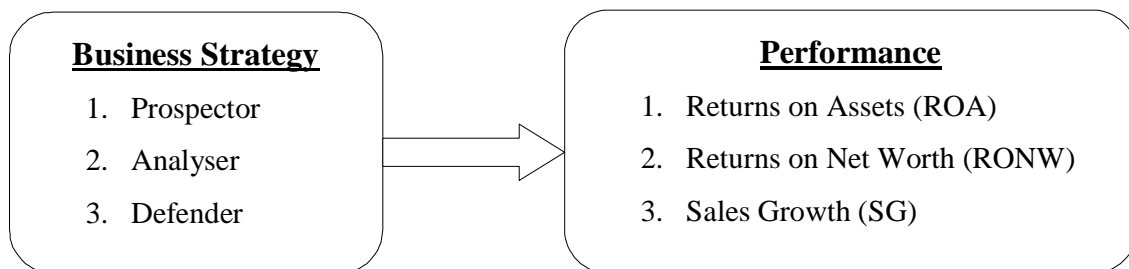
This study may encourage the respondents to re-evaluate strategy formulation process. Further, they may encourage non-respondent companies to adopt the best strategy in order to improve their performance. We believe further investigation could be done on the following: a. This study can be extended to make comparison among different industries on the relationship between business strategy and performance. b. Further studies can be carried out to identify the problems in the formulation of business strategy c. Whether adopting these different strategies makes any difference in the performance of the companies or not? -can be studied. e. Research can be carried out about the role of environment, technology, firm size as a moderator on the relationship between business strategy and performance in automotive industry and the results can be compared with that of other industries.

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**Figure 1 : Research Model**



**Table 1 : Distribution of Respondent – Job Title Wise**

Job Title	Sample	
	Number	Per Cent
Chief Finance Officer (CFO)	2	11.11
General Manger –Finance	5	27.78
Vice President – Finance	4	22.22
Finance Controller	3	16.67
Manager – Finance	3	16.67
Executive Director	1	05.56
<b>Total</b>	<b>18</b>	<b>100</b>

**Table 2 : Results of Cluster Analysis of Respondent Companies  
(Based on types of Business Strategies)**

Dimensions	Cluster 1 Prospectors		Cluster 2 Analysers		Cluster 3 Defenders	
	Mean	SD	Mean	SD	Mean	SD
Firm's Strategic priority is on long term rather short term profits than	4.62	0.65	4.67	0.58	3.00	0.00
Firm concentrates on a single group of related products and sticks to it	4.54	0.66	1.33	0.58	3.00	1.41
Firm's growth has been realised mainly via new product development rather than market penetration	3.62	1.19	4.00	1.00	1.50	0.71
Firm's strong emphasis is on research and development, technological leadership and innovation	4.31	1.03	5.00	0.00	1.50	0.71
Total Summed Score	17.09		15.00		9.00	
No of Companies	13		3		2	

**Table 3 : Results of Discriminant Analysis of Respondents Companies  
(Based on types of Business Strategies)**

Business Strategy	No. Of Companies	Business Strategies		
		Prospectors	Analysers	Defenders
Prospectors	13	12 (92.3)	0	1 (7.7)
Analysers	3	0	3 (100)	0
Defenders	2	0	0	2 (100)
Total	18	12	3	3

**Table 4 : Descriptive Statistics of the average of Performance Measures**

Performance Measures	Minimum	Maximum	Mean	Std. Deviation
SALES GROWTH	4.23	1279.40	90.4557	296.84142
RONW	5.40	51.19	25.4216	13.34283
ROA	14.27	94.94	31.1096	21.04759



**Table 5 : Results of One way ANOVA between Business Strategies and Performance Measures**

Performance Measures	Sources of Variations	Sum of Squares	df	Mean Square	F	Sig.	Decision
ROA	Between Groups	525.838	2	262.919	.563	.581	Insignificant
	Within Groups	7005.179	15	467.012			
	Total	7531.017	17				
Sales Growth	Between Groups	32930.862	2	16465.431	.169	.846	Insignificant
	Within Groups	1465021.225	15	97668.082			
	Total	1497952.087	17				
RONW	Between Groups	189.065	2	94.533	.500	.616	Insignificant
	Within Groups	2837.465	15	189.164			
	Total	3026.531	17				

**Table 6 : Results of One way ANOVA between Business Strategies and Performance Measures (Descriptive)**

Performance Measures	Business Strategies	No. of Companies	Mean	Std. Deviation
ROA	Prospector	13	34.2758	24.03559
	Analyzers	3	25.6262	5.94422
	Defenders	2	18.7543	1.41206
	Total	18	31.1096	21.04759
Sales Growth	Prospector	13	116.9765	349.33479
	Analyzers	3	22.8660	17.34250
	Defenders	2	19.4550	1.46937
	Total	18	90.4557	296.84142
RONW	Prospector	13	26.9334	14.86365
	Analyzers	3	24.7993	8.99450
	Defenders	2	16.5280	4.95258
	Total	18	25.4216	13.34283