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Strategic Planning and Organisational Performance – The Moderating Effect of Environment

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STRATEGIC PLANNING AND ORGANISATIONAL PERFORMANCE – THE MODERATING EFFECT OF ENVIRONMENT

A large number of empirical studies have been conducted examining the relationship between strategic planning and organizational performance. Many of these studies indicate that strategic planning helps organisations to improve their performance. However some studies have suggested that strategic planning has either no effect or a negative effect on performance. Some studies have suggested that external environment moderates the relationship between strategic planning and performance. However the moderation effect of environment has not been examined in detail in the empirical studies. This study examines the relationship between strategic planning and performance and also examines the moderating effects of environmental dynamism and hostility.

INTRODUCTION

Formal strategic planning is an explicit and ongoing organisational process with several components, including establishment of long-term goals, generation and evaluation of strategies and monitoring of the results while implementing strategies (Armstrong, 1982; Steiner, 1979; Boyd, 1991). According to Ansoff (1991) strategic planning generally results in better alignment and financial performance than trial-and-error learning. However this view is challenged by a number of scholars and they argue that strategic planning causes too much rigidity. Empirical research conducted in the last three decades has not produced conclusive evidence to support either of these views (Mintzberg, 1991; Pearce, Freeman & Robinson, 1987).

Conceptual Model and Hypotheses

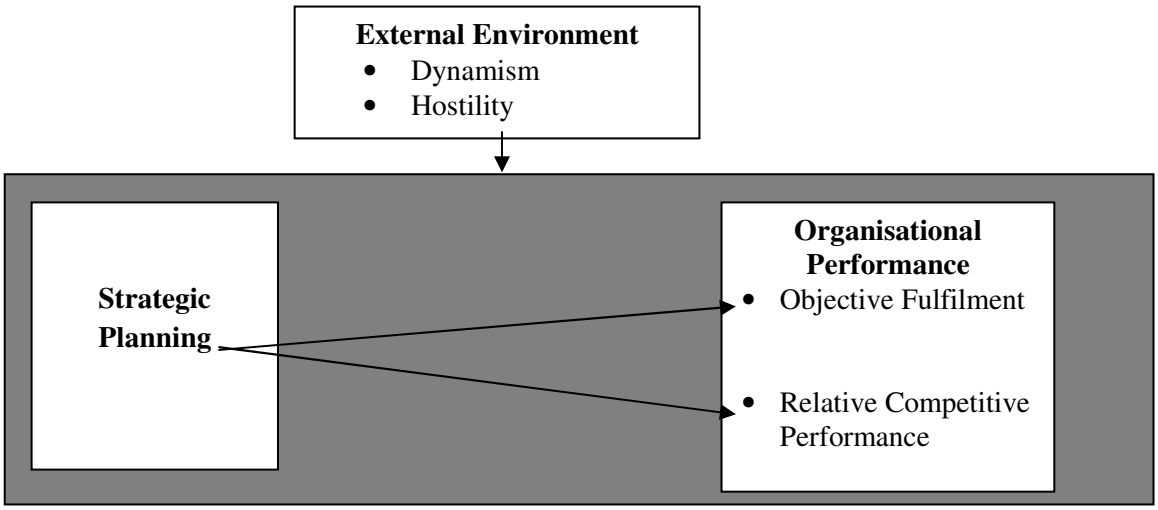

Fig 1: The Moderating Effect of Environment in the Relationship between Strategic Planning and Performance

The conceptual framework used for this study is shown in Figure 1. The planning mode of strategy making proposed by Mintzberg (1973) and the rational mode of strategy making suggested by Hart (1992) are characterised by the rational-comprehensive approach to strategy making (Priem, Rasheed & Kotulic, 1995). The findings of some studies indicate that the rational-comprehensive approach to strategy making is beneficial in stable environments and harmful in dynamic environments. Fredrickson (1984) found a positive relationship between planning rationality and performance in a stable environment. Fredrickson and Mitchell (1984) conducted a study among companies belonging to the sawmills and planing industry (dynamic environment) in the United States and found that there was a negative relationship between planning and performance. However some other studies indicate that planning rationality leads to higher performance in dynamic environments. Miller and Friesen (1983) after studying two samples of organisations consisting of US firms and Canadian firms found that for high performing firms, increases in environmental dynamism are accompanied by increases in planning rationality. Eisenhardt (1989) studied microcomputer industry (dynamic environment) and found that effective organisations belonging to that industry analyse more strategic alternatives which is an indication of planning rationality. Judge and Miller (1991) found that in a dynamic environment, speedy and comprehensive

decision making is associated with high performance. In a study on manufacturing firms, Priem, Rasheed and Kotulic (1995) found a positive relationship between rationality in strategic decision processes and performance in a dynamic environment and no relationship between rationality and performance in a stable environment. Goll and Rasheed (1997) studied manufacturing firms and found that environmental munificence and dynamism moderate the relationship between rationality and performance. They found that rationality in strategic decision-making was strongly related to performance in highly munificent and dynamic environments. Hough and White (2003) in a study conducted among Fortune 100 diversified technology companies found that environmental dynamism moderated the relationship between rational strategic decision making and decision quality. The studies have not produced conclusive evidence regarding the moderating effect of environment in the relationship between strategic planning and performance. Hence the nature and degree of environmental moderation need to be investigated in future studies.

The nature of relationship between strategic planning and performance reported in sixty eight papers reviewed during the systematic literature review process is summarised in Table 1.

Table 1: Results of the Studies

Nature of Relationship	No. of Studies
Positive impact of strategic planning on performance	46
Partially supports this relationship	8
No impact of strategic planning on performance	11
Other results	3
Total	68

The results indicate that a vast majority of the studies have reported a positive relationship between strategic planning and organisational performance. However some of the studies have reported that the relationship between strategic planning and performance is contingent on the operating environment (e.g. Fredrickson, 1984; Fredrickson & Mitchell, 1984; Goll & Rasheed, 1997). Eleven studies did not find a positive relationship between planning and performance. There could be number of

reasons behind these findings like differences in the characteristics of operating environments and variations in the constructs used to measure strategic planning and performance. This also indicates the need for further studies examining this relationship.

Based on the literature review the following hypotheses are posited:

H1: Strategic planning will lead to superior performance in organisations.
H2: Environmental dynamism and hostility moderate the relationship between strategic planning and performance.

Research Design

Data was collected through a postal survey using the survey instrument which was validated by a panel of strategy scholars. Responses were received from 124 manufacturing organisations and the respondents were CEOs. The data analysis relies on multivariate statistical methods.

Table 2: Constructs and Measurement Scales

Element of the Conceptual Model	**Constructs used**	**Sources for measurement scales**
Strategic Planning	Rationality of planning	Goll & Rashid (1997)
External Environment	Dynamism, Hostility	Miller (1987)
Organisational Performance	Objective fulfilment, Relative Competitive Performance	Ramanujam, Venkatraman & Camillus (1988)

The rationality of planning was measured using eight items indicating various aspects of planning and the respondents were asked to indicate the extent to which emphasis was given to these activities in the last five years. The respondents were asked to indicate the changes in their organisations' external environment in the last five years for assessing dynamism and hostility. Traditional measures of performance widely used in empirical studies are primarily centred on financial indicators (Witcher & Chau, 2007). These measures do not take into consideration non-financial objectives of organisations. In this study organisational performance is measured using two constructs namely objective

fulfilment and relative competitive performance. Objective fulfilment is defined as the extent to which the organisation has achieved its short-term and long-term performance objectives and minimised the problems. The CEOs were asked to indicate the extent to which their organisation has fulfilled their objectives in terms of seven factors namely improvement in short-term performance, improvement in long-term performance, predicting future trends, evaluating alternatives based on relevant information, avoiding problem areas, resolving problems and enhancing management development. Relative competitive performance is defined as the extent to which organisational performance has either improved or deteriorated in terms of nine factors namely sales, profit, market share, return on assets, return on equity, return on sales, current ratio, overall firm performance and competitive position. The respondents were asked to compare their performance with their main competitors based on these nine factors. Prior empirical evidence (e.g. Hart & Banbury, 1994) indicates that there is a strong correlation between perceived performance measures and hard measures. We collected the financial data for 52 out of the 124 organisations which participated in the survey from a commercial database. Relative competitive performance is a surrogate measure of the financial performance of an organisation. Hence we examined the correlations between the items corresponding to this measure and the return on assets (ROA) and profit per employee for the year on which the questionnaire data was obtained. We found that ROA was significantly correlated with self-reported measures of market share change, return on sales, overall financial performance and success and competitive position. Profit per employee was significantly correlated with return on sales, overall financial performance and success and competitive position.

We focussed on manufacturing firms in the UK for this study. The manufacturing output in the UK accounts for 15% of the economy and hence this study gains significance in this context. We selected the sample of firms for the survey from a leading commercial database. We used UK SIC (2003) codes as the basis for selecting the sample. We included companies having more than 50 employees belonging to Section – D Manufacturing, Subsections DJ, DK, DL and DM in the sample. These SIC codes

represent the Electrical and Mechanical Engineering firms in the United Kingdom. Altogether there were 4511 companies in the sampling frame. According to the guidelines provided by Salant & Dillman (1994) the minimum number of responses necessary at 95% confidence level and +/- 10% sampling error for a population size of 5000 based on the conservative assumption that the population is relatively varied (50/50 split) is 94. We generated a list of 700 organisations from a population consisting of 4511 companies as randomly as possible. We made telephone calls to these 700 organisations to verify the names of the Chief Executives and the addresses of the organisations. Some of the organisations clearly indicated that they did not want to take part in a survey and we removed from the sample. 8 firms had gone into administration and hence could not take part in the survey. 16 organisations were inactive and we had to exclude them from the sample. Finally we had a sample consisting of 569 organisations.

We mailed questionnaires to the Chief Executives of these 569 organisations with a covering letter and business reply envelopes. Salant & Dillman (1994) suggested sending a follow-up postcard to the members of the sample eight days after sending the questionnaire. However since a telephone call is more effective than a postcard, we made telephone calls to all the companies that had not responded eight days after receiving the questionnaires. Following Salant & Dillman (1994), three weeks after the first mailing, we mailed questionnaires with covering letters and business reply envelopes again to the non-respondents. Our data collection process resulted in 124 usable responses. 11 questionnaires were undeliverable. The overall response rate according to the formula suggested by De Vaus (2002) is 22.22%.

Common Method Variance

Common method variance (CMV) refers to the amount of spurious covariance shared among variables because of the common method used in collecting data (Buckley, Cote & Comstock 1990). In typical survey studies in which the same rater responds to the items in a single questionnaire at the same point in time, data are likely to be susceptible to CMV (Kemery and Dunlap 1986; Lindell and Whitney 2001). Potential causes for spurious correlation between self-report measures are consistency motif, social

desirability, behaviour due to stimuli setting and knowledge deficiency (Podsakoff & Organ, 1986; Miller & Roth, 1994). The constructs used in this study required the respondents to report on discrete events reducing the likelihood of distorted self-reports and / or socially desirable responses. Hence we managed to minimise the CMV problem to a great extent. For reducing the impact of consistency motif, Salancik & Pfeffer (1977) suggested that the questionnaire could be designed in such a way that the dependent variables follow the independent variables. In this study we designed the questionnaire in line with this suggestion. CMV problem can be moderated by choosing the right informant (Miller & Roth, 1994). High ranking informants can be a more reliable source of information than their lower ranking counterparts (Phillips, 1981). Strategic decisions are top-level decisions and only those directly involved can provide valid answers (Tan and Tan, 2005). In this study the CEOs of the participating organisations were the respondents and hence the CMV problem is moderated. Podsakoff, MacKenzie, Lee & Podsakoff (2003) have suggested that protecting respondent anonymity could reduce method bias. In the covering letter accompanying the questionnaires we clearly indicated that all replies would be treated in the strictest confidence and no names or identities of individual firms would be revealed or disclosed to third parties.

The one factor test proposed by Harman (1967) offers a statistical procedure for testing the magnitude of CMV problem. According to this test all the variables of interest are entered into a factor analysis. If there is a major CMV problem the test result will indicate: (i) emergence of a single or very small number of factors from the factor analysis and / or (ii) one general factor accounting for the majority of covariance in the predictor and criterion variables (Podsakoff and Organ 1986, pp. 536). We entered all the 28 variables into an exploratory factor analysis, using principal components method to determine the number of factors that are necessary to account for the variance in the variables. The exploratory factor analysis carried out revealed the presence of 7 distinct factors with eigenvalues greater than 1.0, rather than a single factor. The 7 factors together accounted for 68.76 percent of the total variance; the first (largest) factor did not account for a majority of the variance (28.34%). Thus, no general factor is apparent.

Data Analysis

We present the data analysis in two sections namely Preliminary Data Analysis and Moderated Regression Analysis. In the Preliminary Data Analysis section we present the descriptive statistics, results of the test conducted to assess non-response bias and the test carried out to assess the reliability of the measures.

Preliminary Analysis

The means and standard deviations of the variables included in this study are shown in Table 6. The most fundamental assumption in multivariate analysis is normality and if the variation from the normal distribution is sufficiently large, the statistical tests become invalid (Hair, Black, Babin, Anderson & Tatham, 2006). All the variables are assumed to be normally distributed and the normality of the variables was ascertained by examining the histograms and Normal Q-Q plots. There was no missing data in the questionnaires used for analysis.

We used the procedure adopted by Nandakumar, Ghobadian and O'Regan (2010) to assess non-response bias. We examined non-response bias by comparing the means of the responses received from early and late respondents. We conducted t-tests to find out whether significant differences existed in the means of strategic planning, dynamism, hostility, performance – objective fulfilment and relative competitive performance variables between these two groups. The *p* values we have obtained from the t-tests corresponding to each of these variables are shown in Table 3.

Table 3: Results of the t-tests comparing Early and Late Respondents

Variable	*p value (two-tailed)*
Strategic Planning	0.906
Environmental Dynamism	0.249
Environmental Hostility	0.370
Performance - Objective Fulfilment	0.760
Relative Competitive Performance	0.868

The tests indicated that no significant difference existed between the means of the responses received from early and late respondents. We contacted some of the non-respondents and requested to answer a few questions relating to strategic planning. We compared the difference between the means of the measures of the main sample and that of 40 respondents who answered a small number of questions, statistically by doing a t-test. The differences were not statistically significant. We requested the non-respondents who did not agree to answer the small number of questions to explain the reasons for non-participation. In most of the cases they said that it was because of lack of time to complete the questionnaire. In some cases the company policy did not allow them to respond to surveys.

The internal consistency method is the most commonly used method to assess the reliability of measures and it assesses the consistency among the variables in a summated scale. A diagnostic measure of internal consistency which is commonly used in management research is the reliability coefficient which assesses the consistency of the whole scale. Cronbach's alpha (Cronbach, 1951; Nunnally, 1979; Peter, 1979) is the most widely used reliability coefficient to measure internal consistency. In this study we used Cronbach's alpha to assess the reliability of the scales. Even though many authors have suggested that the lower limit of Cronbach's alpha is 0.7, in empirical research 0.6 is also acceptable (Robinson, Shaver, & Wrightsman, 1991). The Cronbach's alpha values we have obtained for each of the scales are shown in Table 4.

Table 4: Cronbach's Alpha Values of the Measurement Scales

Variable	Cronbach's Alpha
Strategic Planning	0.838
Environmental Dynamism	0.696
Environmental Hostility	0.786
Performance – Objective Fulfilment	0.755
Relative Competitive Performance	0.917

Moderated Regression Analysis

We conducted moderated regression analysis and sub-group analysis to examine the moderating effects of environment and structure on the relationship between business-level strategy and performance. Sharma, Durand and Gur-Arie (1981) developed a methodology for carrying out moderated regression analysis and this was adopted by Prescott (1986), Goll & Sambharya (1995), Goll & Rasheed (1997), Goll & Rasheed (2004) and Nandakumar, Ghobadian and O'Regan (2010). We adopted this procedure in our study to carry out moderated regression analysis. A specification variable is one which specifies the form or magnitude or both of the relationship between a predictor and a criterion variable (Lazarsfeld, 1955; Rosenberg, 1968). Moderator variables can be considered to be subset of specification variables. According to Sharma, Durand and Gur-Arie (1981) there are two types of moderator variables. One type of moderator variable influences the strength of relationship between the predictor (independent) variables and the criterion (dependent) variable and the other type modifies the form of relationship (e.g. changing the sign of the slope). Sharma et al (1981) developed a typology of specification variables using two dimensions namely the relationship with the criterion variable and interaction with the predictor variable. If the specification variable is related to the criterion or predictor variable or both but does not interact with the predictor variable, the variable is referred to as an intervening, exogenous, antecedent, suppressor or additional predictor variable depending on its other characteristics. A type of moderator variable known as homologiser affects the strength of the relationship whereas the other two types of moderator variables known as quasi moderators and pure moderators influence the form of the relationship between the predictor and criterion variables. A homologiser does not interact with the predictor variable and is not significantly related to either the predictor or criterion variable. This type of variable influences the strength of relationship between the predictor and criterion variables. The quasi moderator interacts with the predictor variable and is related to the criterion and / or predictor variable. The pure moderator variable interacts with the predictor variable but it is not related to the criterion and / or predictor variable. These two types of variables modify the form of relationship between the criterion and predictor variables. We carried

out regression analysis separately on the two dependent variables namely objective fulfilment and relative competitive performance. The details of the regression analyses carried out are shown in Table 5.

Table 5: Variables used for Regressing Performance on Strategic Planning, Environment

Regression	Dependent Variable	Independent Variables for Regressions 1 and 2	Interaction Terms for Regressions 1 and 2
1	Objective Fulfilment	Strategic Planning Dynamism Hostility Size	Strategic Planning X Dynamism Strategic Planning X Hostility Dynamism X Hostility
2	Relative Competitive Performance		

In the first regression we regressed objective fulfilment on strategic planning and environment and in the second regression, we regressed relative competitive performance on strategic planning and environment. We controlled for organisational size which was measured as the total number of employees in the organisation since this variable may be related to firm performance. The means, standard deviations and correlations of all the variables involved in testing this hypothesis are shown in Table 6. Strategic planning is significantly correlated with both performance measures. Strategic planning is significantly correlated with dynamism and not hostility.

The results of the regression analysis and sub-group analysis are presented in table 7 and 8 respectively.

Table 6: Correlations, Means and Standard Deviations of Strategic Planning, Environment and Performance Variables

Variable	Mean	S.D.	1	2	3	4	5	6
1. Strategic Planning	4.831	0.941	1					
2. Dynamism	4.379	1.010	0.471**	1				
3. Hostility	4.798	1.097	0.063	0.127	1			
4. Objective Fulfilment	4.980	0.729	0.648**	0.317**	0.066	1		
5. Relative Competitive Performance	4.969	0.894	0.312**	0.127	-0.130	0.417**	1	
6. Size	2.540	1.645	0.171	0.244**	0.041	0.090	0.068	1

*. Correlation is significant at the 0.05 level

**.Correlation is significant at the 0.01 level

Table 7: Model Summaries obtained by Regressing Performance on Strategic Planning, Environment

Independent Variables and Interaction Terms	Beta Coefficients	
	Model 1	**Model 2**
Regression 1: Objective Fulfilment regressed on Strategic Planning, Environment		
Strategic Planning	0.642**	1.182**
Dynamism	0.017	-0.772
Hostility	0.025	-0.008
Strategic Planning X Dynamism	----	0.024
Strategic Planning X Hostility	----	-0.894
Dynamism X Hostility	----	1.117*
Size	-0.025	-0.010
R^2	0.421	0.442
F Change	21.604**	1.468
Regression 2: Relative Competitive Performance Regressed on Strategic Planning, Environment		
Strategic Planning	0.323**	-0.209
Dynamism	-0.012	-1.211*
Hostility	-0.149	-1.400**
Strategic Planning X Dynamism	----	0.371
Strategic Planning X Hostility	----	0.566
Dynamism X Hostility	----	1.358*
Size	0.021	0.040
R^2	0.120	0.199
F Change	4.057**	3.801**

* $p \leq 0.05$, ** $p \leq 0.01$

Table 8: Results of the Sub-group Analysis Examining the Relationship between Strategic Planning and Performance in High-Low Dynamism and Hostility Environments

High Dynamism	Low Dynamism	High Hostility	Low Hostility
Correlations between Strategic Planning and Objective Fulfilment			
0.590**	0.667**	0.626**	0.669**
Correlations between Strategic Planning and Relative Competitive Performance			
0.314**	0.341*	0.435**	0.199

*. Correlation is significant at the 0.05 level (2-tailed)

**.Correlation is significant at the 0.01 level (2-tailed)

Table 9: Results of the Moderated Regression Analysis - Performance Regressed on Strategic Planning, Environment

Regression	Hypothesised Moderators	Correlations with		Interaction Effect	Results of the Sub-group Analysis	Type of Effect
		Predictor Variable	Criterion Variable			
1	Dynamism	Strategic Planning	Objective Fulfilment	No	Correlation is slightly stronger for the low dynamism group	Intervening, Exogenous, Antecedent, Suppressor or Predictor
		Significant	Significant			
	Hostility	Not significant	Not significant		Correlations between the predictor and criterion variables are not significantly different for both the groups	Homologiser
2	Dynamism	Strategic Planning	Relative Competitive Performance	Yes	Correlations between the predictor and criterion variables are not significantly different for both the groups.	Quasi moderator
		Significant	Not significant			
	Hostility	Not significant	Not significant		Correlation for the high hostility group is highly significant	Pure Moderator

CONCLUSION

The findings from the moderated regression analysis are summarized in Table 9. The findings indicate that environment moderates the relationship between strategic planning and financial performance. Environmental dynamism acts as a quasi moderator and hostility acts as a pure moderator. However in the relationship between strategic planning and objective fulfillment hostility acts as a homologiser. Environmental dynamism does not exhibit any moderating effect in this relationship.

One of the main limitations of this study is the problem of single respondents (e.g. Bowman & Ambrosini, 1997). However a number of authors contend that the CEO is likely to provide accurate information about organisational strategies (e.g. Hambrick, 1981). Since all the respondents in this study are CEOs the information they have provided about the strategies of their organisations can be considered to be accurate. This approach is extensively used in strategic management research.

REFERENCES

Ansoff, H. I. (1991). 'Critique of Henry Mintzberg'sThe Design School: Reconsidering the Basic Premises of Strategic Management'.*Strategic Management Journal,* 12(6), pp. 449-461.

Armstrong**,** J. S. (1982).'The Value of Formal Planning for Strategic Decisions: Review of Empirical Research'.*Strategic Management Journal*, 3(3), pp. 197-211.

Bowman, C., &Ambrosini, V. (1997).'Using Single Respondents in Strategy Research'.*British Journal of Management*, 8(2), pp. 119-131.

Boyd, B. K. (1991). 'Strategic planning and financial performance: a meta-analytic review'.*Journal of Management Studies*, 28(4), pp. 353-374.

Buckley, M. R., Cote, J. A. & Comstock, S. M. (1990). 'Measurement Errors in Behavioral Sciences: The Case of Personality / Attitude Research'.*Educational Psychology Measurement*, 50(3), pp. 447-474.

Cronbach, L. J. (1951). 'Coefficient Alpha and the Internal Structure of Tests'.*Psychometrika*, 16, 297-334.

De Vaus, D. A. (2002).*Surveys in Social Research*, (5 ed.). London: Routledge.

Eisenhardt, K. M. (1989). 'Making fast strategic decisions in high-velocity environments'.*Academy of Management Journal*, 32(3), pp. 543-576.

Fredrickson, J. W. (1984). 'The comprehensiveness of strategic decision processes: Extensions, observations, future directions'. *Academy of Management Journal*, 27(3): pp. 445-466.

Fredrickson, J. W. & Mitchell, T. R. (1984). 'Strategic Decision Processes: Comprehensiveness and Performance in an Industry with an Unstable Environment'.*Academy of Management Journal,* 27(2), p399-423.

Goll, I. and Rasheed A. M. A. (1997). 'Rational Decision-making and Firm Performance: The Moderating Role of Environment'.*Strategic Management Journal* **18(7):** 583-591.

Goll, I. and Rasheed A. M. A. (2004). 'The Moderating Effect of Environmental Munificence and Dynamism on the Relationship Between Discretionary Social Responsibility and Firm Performance'.*Journal of Business Ethics*, 49(1), pp. 41-54.

Goll, I. &Sambharya, R. B. (1995).'Corporate Ideology, Diversification and Firm Performance'.*Organisation Studies*, 16(5), pp. 823-846.

Hambrick, D. C. (1981).'Strategic Awareness within Top Management Teams'.*Strategic Management Journal,* 2(3), pp.263-279.

Hair Jr., J. F., Black, W. C., Babin, B. J., Anderson, R. E. &Tatham, R. L. (2006).*Multivariate Data Analysis*, (6 ed.). New Jersey: Pearson Prentice Hall.

Harman, H. H. (1967).*Modern Factor Analysis* (2 ed.). Chicago: University of Chicago Press.

Hart, S. (1992). 'An integrative framework for strategy-making processes'.*Academy of Management Review*, 17: 327-352.

Hart, S. & Banbury, C. (1994) 'How Strategy-Making Processes can Make a Difference'. *Strategic Management Journal*, 15(4), pp. 251-269.

Hough**,** J. R. & White, M. A. (2003). 'Environmental Dynamism and Strategic Decision-Making Rationality: An Examination at the Decision Level'.*Strategic Management Journal*, 24(5), pp. 481-489.

Judge, W. Q., & Miller, A. (1991).'Antecedents and outcomes of decision speed in different environmental contexts'. *Academy of Management Journal*, 34, pp.449-463.

Kemery, E. R., Dunlap, W. P. (1986). 'Partialling Factor Scores does not Control Method Variance: A Reply to Podsakoff and Todor'.*Journal of Management,* 12(4), pp. 525-544.

Lazarsfeld, P. F. (1955). 'Interpretation of Statistical Relations as a Research Operation', In P. F. Lazarsfeld& M. Rosenberg (Eds.).*The Language of Social Research*, Glencoe, Illinois: The Free Press.

Lindell, M. K. & Whitney, D. J. (2001).'Accounting for Common Method Variance in Cross-sectional Research Designs'.*Journal of Applied Psychology,* 86(1), pp. 114-121.

Miller, D. (1987). 'The structural and environmental correlates of business strategy'.*Strategic Management Journal,* 8(1), pp. 55-76.

Miller, D., & Friesen, P. H. (1983).'Strategy making and environment: The third link'. *Strategic Management Journal*, 4, pp. 221-235.

Miller, J. G. & Roth, A. V. (1994).'A Taxonomy of Manufacturing Strategies'.*Management Science,* 40(3), pp. 285-304.

Mintzberg, H. (1973). 'Strategy making in three modes'.*California Management Review*, 16(2): 44-53.

Mintzberg, H. (1991). 'Learning 1, Planning 0 Reply to Igor Ansoff'.*Strategic Management Journal*, 12(6), pp. 463-466.

Nandakumar, M.K., Ghobadian, A. and O'Regan, N. (2010). Business-level Strategy and Performance The moderating effects of environment and structure. *Management Decision*,Vol.48, pp 907-939

Nunnally, J. (1979). *Psychometric Theory.* New York: McGraw-Hill.

Pearce II, J. A., Freeman, E. B. & Robinson Jr., R. B. (1987).'The Tenuous Link between Formal Strategic Planning and Financial Performance'.*Academy of Management Review,* 12(4), pp.658-675.

Peter, J. P. (1979). 'Reliability: A Review of Psychometric Basics and Recent Marketing Practices'.*Journal of Marketing Research*, 16(2), pp. 6-17.

Phillips, L. W. (1981).'Assessing Measurement Error in Key Informant Reports: A Methodological Note on Organizational Analysis in Marketing'.*Journal of Marketing Research,* 18(4), pp. 395-415.

Podsakoff, P. M. & Organ, D. W. (1986). Self-reports in Organisational Research: Problems and Prospects.*Journal of Management,* 12(4), pp. 531-544.

Podsakoff, P. M., MacKenzie, S. B., Lee, J &Podsakoff, N. P. (2003). 'Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies'.*Journal of Applied Psychology,* 88(5), pp. 879-903.

Prescott, J. E. (1986). 'Environments as Moderators of the Relationship between Strategy and Performance'.*Academy of Management Journal,* 29(2), pp. 329-346.

Priem, R. L., Rasheed, A. M. A. &Kotulic, A. G. (1995).'Rationality in Strategic Decision Processes, Environmental Dynamism and Firm Performance'.*Journal of Management,* 21(5), pp. 913 – 929.

Ramanujam**,** V., Venkatraman**,** N. & Camillus, J. C. (1986).Multi-Objective Assessment of Effectiveness of Strategic Planning: A Discriminant Analysis Approach.*Academy of Management Journal*, 29(2),pp.347-372.

Robinson, J. P., Shaver, P. R. and Wrightsman, L. S. (1991).Criteria for Scale Selection and Evaluation. In J. P. Robinson, P. R. Shanver and L. S. Wrightsman (eds.). *Measures of Personality and Social Psychological Attitudes,* San Diego, CA: Academic Press.

Rosenberg, M. (1968).*The Logic of Survey Analysis.* New York: Basic Books, Inc.

Salancik, G. R. &Pfeffer, J. (1977).'An Examination of the Need-satisfaction Models of Job Attitudes'.*Administrative Science Quarterly,* 22(3), pp. 427-456.

Salant, P. &Dillman, D. (1994).*How to Conduct Your Own Survey.* New York: John Wiley

Sharma, S., Durand, R. M. &Gur-Arie, O. (1981).Identification and Analysis of Moderator Variables.*Journal of Marketing Research*, 18(8), pp. 291-300.

Steiner, G. A. (1979). *Strategic Planning: What Every Manager Must Know*. New York: The Free Press.

Tan, J. & Tan, D. (2005). 'Environment-Strategy Co-evolution and Co-alignment: A Staged Model of Chinese SOEs under Transition'.*Strategic Management Journal,* 26(2), pp. 141-157.

Witcher, B. J. &Chau, V. S. (2007). 'Balanced scorecard and hoshinkanri: dynamic capabilities for managing strategic fit'.*Management Decision*, 45(3), pp. 518-538.

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Abstract:

A large number of empirical studies have been conducted examining the relationship between strategic planning and organizational performance. Many of these studies indicate that strategic planning helps organisations to improve their performance. However some studies have suggested that strategic planning has either no effect or a negative effect on performance. Some studies have suggested that external environment moderates the relationship between strategic planning and performance. However the moderation effect of environment has not been examined in detail in the empirical studies. This study examines the relationship between strategic planning and performance and also examines the moderating effects of environmental dynamism and hostility.

Key Words/Phrases: