PERCEIVED ENVIRONMENTAL UNCERTAINTY & COMPANY PERFORMANCE: EFFECT ON STRATEGIC INVESTMENT DECISIONS

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ABSTRACT

Purpose

The purpose of this research is to empirically examine the influence of perceived environmental uncertainty and perceived company performance on the extent of use of risk analysis techniques in strategic investment decisions.

Design/Methodology/Approach

This study has developed and tested a structural model linking perceived environmental uncertainty and perceived company performance and the extent of use of risk analysis techniques using Partial Least Square –Path Modelling method. The primary data has been collected from Senior Finance Professionals representing 36 automotive companies operating in India through a single cross-sectional mailed survey.

Findings

This study found that higher the perceived environmental uncertainty and perceived company performance, higher the level of use of risk analysis techniques in strategic investment decisions.

Practical Implications

This study found that the extent of use of risk analysis techniques purely depends on how accurate and precise the DMs’ perceptions on the environment and company performance are. If they ignored, it doesn’t not only affect the degree of rationality of a decision, then the resulting irrationality affects not only the particular projects, but also the company as a whole. Thus, in order to ensure wealth maximising decision making, it is necessary to adjust the analysis to account for the varying degrees of risk of a project, which increases the use of risk analysis techniques.

Originality/Value

This study adds value to existing capital budgeting literature in Indian context. The study focuses how an increasing complexity of the business environment of automotive companies operating in India has prompted increasing interest in risk analysis in SIDs in order to maintain the competitive position.

KEYWORDS: Perceived Company Performance, Perceived Environmental Uncertainty, Risk Analysis, Strategic Investment Decisions

INTRODUCTION

In today’s dynamic business environment, efficient allocation of capital is the most important and challenging task for the modern decision- makers. As the business environment becomes increasingly volatile and competitive, the art
of making good decisions is considered as more complex and significant than ever before. This enhances the importance of decision makers who take/involve themselves in strategic decisions (SDs). Strategic Investment Decisions (SIDs) are among the most important of all SDs that determine the overall direction of any business. Further, these decisions are the key drivers to the survival and success of a company (Kannadhasan and Nandagopal, 2008). A variety of techniques (viz. Payback, Accounting Rate of Return, Net present value, internal rate of return, and Profitability index) have been developed to assist in making SIDs which may be classified into naïve and sophisticated techniques (Mark Freeman and Garry Hobes, 1991). The Net Present Value (NPV) and Internal Rate of Return (IRR) methods are considered to be the most sophisticated of all (Pike 1983; Klammer, 1972; Haka et al, 1985). However these two techniques are demonstrated under the conditions of certainty. The development of various risk analysis techniques has been necessitated by the uncertainty associated with cash flows, which are due to changes in the management’s expectations over time and arrival of new information (Klammer et al 1991, Dastgir 2005).

In practice, risk analysis techniques have been classified into formal and informal methods (Smith, 1994). There is an increasing trend in the use of formal risk analysis techniques in capital budgeting decisions due to the availability of computer software packages that can help in applying these techniques with ease (Pike, 1989) and availability of information (Ho and Pike, 1996). The extant literature shows that most of the manufacturing companies use more than one technique for analysing risk in their SIDs (for example, Pike 1996). Moreover, among the risk analysis techniques, sensitivity analysis (SA) technique is the most popular technique, followed by scenario analysis technique (Pike 1988 and 1996), Klammer et al (1991), Arnold and Hatzopoulos (2000), Farragher et al 1999, Farragher and Leung 1987, Kester and Chong 1998, Kester et al 1999, Jog and Srivastava 1995, Pandey 1989, Manoj Anand 2002, Ashish Kumar and Bhavin Shah 2006, Zaki Osemy 2001, Kannadhasan & Nandagopal (2010a).

However, most of the above mentioned studies had reported about the risk handling practices and the related problems as part of broad based surveys. Very limited studies have investigated the extent of the use of these techniques and their relationship with the organizational characteristics such as business strategy, information system, and environmental uncertainty, perceived company performance and so on. For example, Ho and Pike (1998) found that a number of key firm characteristics influence the extent of the use of risk analysis in Strategic investment decisions (SIDs). Similarly, Kannadhasan and Nandagopal (2010a, 2010b and 2010c) found that business strategy and information systems of a firm and company-specific factors influence the extent of use of Risk analysis techniques in Indian context respectively. From the capital budgeting literature, it is clear the perceived environmental uncertainty and perceived company performance also play a pivotal role in the extent of use of Risk analysis in SIDs; this study examines the same in automotive industry in India.

The automotive industry is capital intensive and characterised by large scale investment and subject to technology driven product cycles (Heitger et al 1999) which is similar to the characteristics of SIDs. Therefore, there is a requirement for capital expenditure projects in this industry. The automotive industry is also known as a volume driven industry which needs certain critical mass as a perquisite to retain/attract the consumers. This necessitates higher investment in R&D and new product development which is the life line for achieving and retaining the competitiveness within the industry. This in turn, depends on the company’s capacity and the speed of the company to innovate and upgrade (Kannadhasan and Nandagopal, 2010b). As a result, the company has to invest large amount of money that brings risk analysis into this context. Further, an increasing complexity of the business environment of automotive companies (say, technology changes, consumer preferences, intense competition, and so forth) operating in India has prompted increasing interest in risk analysis in SIDs in order to maintain the competitive position.
LITERATURE REVIEW AND HYPOTHESES

There are a number of techniques available for analysing investment risk, which may be classified into subjective and formal techniques. Formal techniques include sensitivity analysis (SA), simulation models (SM), probability tree (PT), adjustment of required payback period (ARPP), Adjustment of discount rate (ADR) and so on. The trends in the use of formal risk analysis techniques in capital budgeting are well documented in many countries. The increasing use of formal techniques is due to the availability of computer software packages which can help in applying these techniques in practice. Among the risk analysis techniques, Sensitivity analysis technique is the most popular technique, followed by scenario analysis technique (Pike (1988 and 1996), Klammer et al (1991), Arnold and Hatzopoulos (2000), Farragher et al 1999, Farragher and Leung 1987, Kester and Chong 1998, Kester et al 1999, Jog and Srivastava 1995, Pandey 1989, Manoj Anand 2002, Ashish Kumar and Bhavin Shah 2006, ZakiOsemy 2001, for example.) The extent of use of these techniques is influenced by various factors such as organisational characteristics, individual characteristics, and industry characteristics. This study deals with select organisational characteristics viz. Environmental uncertainty and perceived company performance.

Environmental Uncertainty

This is an important variable identified from the contingency theory. This contingency framework suggests that organisations must adapt to their organisational environment in order to survive and prosper. But the present environment in which decisions are made is more complex than ever before. However, accurate understanding of the environment helps the Decision Makers make better decisions. The decision making environment is defined as the collection of all relevant information, possible alternatives, values and preferences available at the time of decision making (Robert Harris 1998). An ideal environment has all the relevant and possible information, which are accurate, and has possible and viable alternatives. However, it is impossible to have all the relevant information needed to make a decision with certainty. This indicates that most decisions involve an undeniable amount of uncertainty or risk. In the context of the contingency theory framework, many research works / researchers (Rentizeals et al 2007, Carpenter and Fredrickson 2001, Elbanna and Child 2007, Bourgeois et al 1988, Sauner-Leroy 2004, Cohen 2001, Alessandri 2003) considered environment as one of the important contingency factors. Porter (1980), Ho and Pike (1998) described environment as those forces (such as suppliers, customers, competitors, government regulatory agencies, public pressure, capital market and so forth) outside the organization, but over which the organization has little control, and that these forces can potentially affect the outcomes of a decision and in turn, organization’s performance.

Findings of the prior research studies show that the results are mixed. There is a positive relationship between environmental uncertainty and capital budgeting sophistication (Pike 1984). Conversely Kim et al (1981) found that there is a negative relationship between the environmental uncertainty and capital budgeting sophistication. From the above discussions, it is clear that there is a relationship between the environmental uncertainty and capital budgeting sophistication which indicates that DM has responsibilities to evaluate the environment and his organisation’s position before allocating resources and sometimes to move into and out of an environment. Evaluation of an environment can be done in two ways viz. Objective and perceptual. In order to measure the environmental uncertainty in automotive industry, the present study adopts perceptual measure which has been used widely. Perceived environmental uncertainty refers to “an individual’s perceived inability to predict something accurately”. In other words, perceived environmental uncertainty occur when DM perceives an organisation’s environment to be unpredictable, or an inability to understand the future state of the environment (Milliken 1987). In a given situation, it is arguable that DMs may develop diverse perceptions and interpretations when they face the ‘same’ environmental events across the country. Numerous studies (for example,
Pleshko 2006, Cohen 2001, Ho and Pike 1998, Pike 1986, Namiki 1989) have used perceptual method in order to measure the environmental uncertainty in various dimensions (such as technology, competition, buyers, suppliers and so forth). From the SIDs context, it is therefore argued that decision making by the DMs have partly resulted from their ‘perception of environment’ during the decision making process. Perceived environmental uncertainty has been especially emphasised in prior studies on capital budgeting decisions. Therefore it is expected that:

\[ H_1: \text{Higher the environmental uncertainty, higher is the level of risk analysis in SIDs} \]

**Perceived Company Performance**

There are number of studies which investigated the relationship between performance and risk (for example, Bromiley 1991). The past performance of a company is a major determinant of risk behaviour in decision making (Bromiley 1991) and has an influence over the design of the capital budgeting decision process (Pike, 1986). Knowing recent earning performance level helps DMs understand the present position. This, in turn, helps in making SIDs related to expansion, diversification and so forth. For example, prospect theorists (Kahneman and Tversky 1979) have argued that, under conditions of adversity, failure to meet performance targets will lead to increased change and risk seeking (Bromiley 1991). This risk seeking attitude may reduce employing sophisticated techniques in their SIDs. Besides, as long as performance is at satisfactory level, companies are more likely to continue whatever rules of thumb they had followed in the past while allocating resources (Warren Boeker 1997). In simple words, the techniques employed in the past will be followed in the future when the performance of a company is at satisfactory level. Therefore it is expected that:

\[ H_2: \text{Better the performance of a company, higher is the level of risk analysis in SIDs} \]

**Proposed Research Model**

This paper has conceptualised the research model with the help of the extant literature. The same is given in figure 1. The proposed relationships were examined using Partial Least Square-Path Modelling (PLS-PM).

![Research Model](image)

**Figure 1: Research Model**

**RESEARCH METHOD**

**Sample**

This study was restricted to listed companies in BSE/NSE operating in the automotive industry India. Among the 146 listed companies, the study has identified 95 companies as the sample frame of this study. The other fifty one companies were excluded due to the companies being relatively new and the decision making being centralised for group of companies. The questionnaire was sent to senior finance professionals (CFO, General Manager-Finance, Vice President-Finance, Controller etc.) of 95 companies. Each questionnaire was sent to senior financial professionals along with signed personalised covering letter. To increase the response rate of the survey, two personalised mailings were sent two months apart. After follow up, 36 completed questionnaires were received (a response rate of 37.89).
The response rate is better than those of previous studies [20 per cent of Ashish Kumar & Bhavin Shah (2006; 15.43 per cent of Manoj Anand (2000)]. Twenty responses were received from the first mailing and sixteen from the second mailing. Five were returned as undeliverable and eight indicated that they do not respond to mail surveys. In addition, this study used one sample’s t-test to test whether the sample companies are truly representative of the population or not with the help of net fixed assets (Shimin Chen, 2008). The test confirmed that the sample of 36 companies is a truly representative of the population (refer table 1).

Table 1: Descriptive Statistics and Results of One Sample t-Test

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Population</th>
<th>Population Mean</th>
<th>Sample</th>
<th>Sample Mean</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>19</td>
<td>813</td>
<td>10</td>
<td>845.71</td>
<td>1165.19</td>
<td>0.089</td>
<td>9</td>
<td>0.931</td>
</tr>
<tr>
<td>Ancillaries</td>
<td>76</td>
<td>111</td>
<td>26</td>
<td>108.89</td>
<td>107.35</td>
<td>-0.196</td>
<td>25</td>
<td>0.846</td>
</tr>
<tr>
<td>Automotive (i.e. overall)</td>
<td>95</td>
<td>245</td>
<td>36</td>
<td>313.55</td>
<td>685.11</td>
<td>0.60</td>
<td>35</td>
<td>0.550</td>
</tr>
</tbody>
</table>

Measurement

In designing the questionnaire, the authors collected the relevant papers (Ho & Pike, 1998; Cohen, 2001). This study has used three variables namely, Risk analysis techniques, Perceived Environmental Uncertainty and Perceived Company Performance. Responses to the questionnaire items were measured on a five-point scale (see annexure).

Risk Analysis Techniques

This term refers to the formal risk analysis techniques viz. Sensitivity Analysis, Probability analysis, Risk simulation, and Capital Asset Pricing Model (CAPM) that are used to assess the risk associated with the investment decisions. This study was used on the four items to measure the extent of use of risk analysis techniques, which were measured on a five point frequency scale ranging from “strongly agree” to ‘strongly disagree’.

Perceived Environmental Uncertainty

This study used dynamism (uncertainty of environment) to assess the organisational environment of automotive manufacturing companies operating in India. The term uncertainty of environment refers to seven items (competitors, customers, suppliers, financial markets, government regulations, trade unions, and technological changes) that are likely to influence a business organisation. The degree of uncertainty of these seven forces were measured on a five-point scale ranging from “predictable” to “Never predictable”.

Perceived Company Performance

In order to measure the overall performance of a company, previous studies had used two types of measures viz. perceptual measures gathered from the respondents and objective/accounting measures derived from mandatory accounting reports. This study has used perceptual measure. This study gathered data from the respondents on six items (sales, profitability, cash flow generating ability, market share position, potential efficiency, and competitive position) that are likely to influence the risk analysis in SIDs. The agreeableness of these six forces was measured on a five-point scale ranging from “Strongly agree” to “Strongly disagree”, the extent to which their performance was improved over the past three years.

The next logical step in data analysis is the test of reliability and validity of the instrument items. The most common method of reliability test viz. Cronbach’s alpha coefficient for assessing reliability of the constructs has been used in this study. The reliability of the constructs is above the minimum threshold level for a construct (Nunnally 1978) and
hence all the constructs have good reliability (see Table 2). During the measurement model, three of the items had loadings below the acceptable level of 0.50 and subsequently from the associated factor namely perceived environmental uncertainty (See Table 2). After verifying the reliability, it is important to examine the validity of the constructs. The measures included in the study have the content, predictive, convergent and discriminant validity. The content validity is examined through pilot study involving senior finance professionals, consultants and academics. The convergent validity of each construct, modelled in the reflective mode, is verified by examining the “Average variance extracted (AVE)” values. AVE values are greater than the minimum threshold level i.e. 0.50 (Hair et al, 2006) or was close enough to 0.50 to be acceptable (Cohen 2001). All constructs had exceeded the minimum AVE value or were close enough to the acceptable level (See table 2). The discriminant validity can be tested by examining the square root of a construct’s AVE, which should be greater than the correlation between one construct and the other constructs used in the model or squared correlation between the constructs which should be less than the AVE (see Fornell Larcker, 1981, Hair et al 2006). The AVE values are greater than the R-square value (0.472), which indicates that all the constructs have good discriminant validity (See table 3).

### Table 2: Measurement Variables Used in the Model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicators</th>
<th>Mean</th>
<th>SD</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Environmental Uncertainty (PEU)</td>
<td>Action of suppliers</td>
<td>3.75</td>
<td>0.77</td>
<td>0.526</td>
</tr>
<tr>
<td>Alpha: 0.671</td>
<td>Actions of competitors</td>
<td>3.14</td>
<td>1.02</td>
<td>0.779</td>
</tr>
<tr>
<td>AVE: 0.479</td>
<td>Customer preference and Tastes</td>
<td>3.36</td>
<td>0.90</td>
<td>0.507</td>
</tr>
<tr>
<td>Composite Reliability: 0.770</td>
<td>Action of trade unions</td>
<td>3.11</td>
<td>1.06</td>
<td>0.857</td>
</tr>
<tr>
<td>Perceived Company Performance (PCP)</td>
<td>Our sales performance has been satisfactory</td>
<td>3.69</td>
<td>0.98</td>
<td>0.811</td>
</tr>
<tr>
<td>Alpha: 0.746</td>
<td>Our profitability is good</td>
<td>3.36</td>
<td>1.05</td>
<td>0.798</td>
</tr>
<tr>
<td>AVE: 0.684</td>
<td>Our cash flow generating ability is good</td>
<td>3.44</td>
<td>0.97</td>
<td>0.762</td>
</tr>
<tr>
<td>Composite Reliability: 0.929</td>
<td>Our market share position is good</td>
<td>3.56</td>
<td>0.91</td>
<td>0.865</td>
</tr>
<tr>
<td>Risk analysis Techniques</td>
<td>Our potential efficiency is good</td>
<td>3.69</td>
<td>0.86</td>
<td>0.816</td>
</tr>
<tr>
<td>Alpha: 0.908</td>
<td>Our competitive position is good</td>
<td>3.69</td>
<td>0.92</td>
<td>0.902</td>
</tr>
<tr>
<td>AVE: 0.565</td>
<td>CAPM</td>
<td>2.58</td>
<td>1.156</td>
<td>0.774</td>
</tr>
<tr>
<td>Composite Reliability: 0.835</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 3: Correlation among the Construct Scores

<table>
<thead>
<tr>
<th>Name of the Variable</th>
<th>RA</th>
<th>PEU</th>
<th>PCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Analysis Techniques (RA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Environmental Uncertainty (PEU)</td>
<td>0.389</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Company Performance (PCP)</td>
<td></td>
<td>0.236</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** AVE for each construct is greater than the correlation between the construct and any other construct in the model

### RESULTS

In order to examine the proposed research model, the study employed the Partial Least Square which is a Structural Equation Modelling (SEM) technique. This technique is well suited for predictive models using small samples (Chin, 1998). Typically, SEM approach is used to develop a causal model with an objective of model validation. SEM is a second generation multivariate technique gaining popularity in management research. It combines multiple regression and factor analysis to estimate the interdependence relationships simultaneously. There are two approaches to SEM namely Covariance approach and Partial Least Square based approach. The Covariance-based approach for SEM needs a large
sample. The definition of large size varies from one author to another. Some define it as a sample having more than 100 subjects and some others define it as a sample having three characteristics namely more than 200 subjects, at least three indicators, and typically requiring reflective mode. On the other hand, Herman Wold initiated the component-based approach to SEM in 1982, under the name “PLS” as an alternative to covariance based approach. Partial Least Square Path Modelling (PLS-PM) is generally meant as a component-based approach to SEM. Further, PLS does not make assumptions about the population or scale of measurement and there are no distributional requirements (Fornell et al 1995).

Since Partial Least Square makes no distributional requirements, the structural model was evaluated using the R-square for the dependent constructs and the size, t-statistics and significance of the path coefficients. Path coefficients in Partial Least Square are standardised regression coefficients (Staples et al 1998 in Cohen 2001). In order to ensure whether path coefficients are statistically significant or not, bootstrap and Jackknife re-sampling procedures are used to estimate standard errors for calculating t-values (Fornell and Barclay, 1983). The results are examined at 5 per cent significance level and the t-statistic value at the 0.05 level is 1.96. If the t-statistic value is greater than 1.96, the path is significant (Efron 1979, Efron and Gong 1983). Table 4 and Figure 2 present the results of the test of the model.

Table 4: Bootstrap Summary of Research Model and Hypothesis Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original Sample Mean</th>
<th>SD</th>
<th>Standard Error</th>
<th>t-Statistic</th>
<th>R Square Value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H 1</td>
<td>0.241</td>
<td>0.276</td>
<td>0.085</td>
<td>0.085</td>
<td>2.817</td>
<td>0.5260</td>
</tr>
<tr>
<td>H2</td>
<td>0.630</td>
<td>0.623</td>
<td>0.055</td>
<td>0.055</td>
<td>11.394</td>
<td>0.5260</td>
</tr>
</tbody>
</table>

Figure 2: Validation of Research Model

The path linking perceived environmental uncertainty to the extent of use of risk analysis techniques was found to be positively significant at 0.05 level (Beta = 0.241, t = 3.051). This reveals that greater the perceived environmental uncertainty, higher the level of risk analysis techniques in SIDs. The path linking perceived company performance to the extent of use of RAT was found to be positively significant at 0.05 level (Beta = 0.630, t = 12.828). This reveals that higher the perceived company performance, higher the level of risk analysis techniques in SIDs. The coefficient of determination i.e. R^2 indicates the predictive power of the structural model i.e. these two variables have a good predictive power (0.526 i.e. 52.60 per cent) of the extent of use of risk analysis techniques in SIDs. In addition to the above, the analysis indicates that all the firms formally analyse project risk for almost all the projects.

It also reveals that the firms use multiple techniques simultaneously to evaluate the investment projects. The most often used method is sensitivity analysis, followed by probability analysis, CAPM, and Monte-Carlo-type probabilistic simulation techniques (see table 2). To examine the difference between automobile and ancillary companies with regard to the extent of use of risk analysis techniques, perceived environmental uncertainty and company performance, this study employed t-test for equality of mean score. Table 4 shows that there is no significant difference among the automobile and ancillary companies with regard to the extent of use of risk analysis techniques, perceived environmental uncertainty and
company performance. This indicates that companies’ risk assessment practices in SIDs do not vary with their size and types of investments.

Table 5: Results of t-Test for Equality of Means

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>Df</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk analysis techniques</td>
<td>Automobile</td>
<td>10</td>
<td>3.02</td>
<td>0.88</td>
<td>0.052</td>
<td>34</td>
<td>0.96</td>
<td>Insignificant</td>
</tr>
<tr>
<td></td>
<td>Ancillary</td>
<td>26</td>
<td>3.01</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Environmental Uncertainty</td>
<td>Automobile</td>
<td>10</td>
<td>3.25</td>
<td>0.87</td>
<td>-1.57</td>
<td>34</td>
<td>0.13</td>
<td>Insignificant</td>
</tr>
<tr>
<td></td>
<td>Ancillary</td>
<td>26</td>
<td>3.70</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Company performance</td>
<td>Automobile</td>
<td>10</td>
<td>3.20</td>
<td>0.67</td>
<td>-0.42</td>
<td>34</td>
<td>0.68</td>
<td>Insignificant</td>
</tr>
<tr>
<td></td>
<td>Ancillary</td>
<td>26</td>
<td>3.29</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSIONS AND CONCLUSION

The purpose of the models was to discover the influence of the perceived environmental uncertainty and perceived company performance on the extent of use of risk analysis techniques in automotive companies. Using the multivariate statistical tool PLS-PM, the study identified the key influences and their relative role on risk analysis in SIDs. Note that, two of the two paths in the research model were found to be significant. The discussion part begins with the extent of use of risk analysis techniques in SIDs. The most often used method is sensitivity analysis followed by probability analysis. An increase in the usage of risk analysis techniques is due to the availability of software packages containing risk analysis tools which assist in making SIDs (Pike, 1996; and Manoj, 2002). The use of multiple techniques is consistent with idea of Miller and Waller (2003) that multiple techniques are used to display management responsiveness to different aspects of the investment decisions.

Perceived Environmental Uncertainty

Contingency theory has played an important role in capital budgeting literature for the past three decades. This study seeks to examine whether one among the contingency variables namely perceived environmental uncertainty influences the extent of use of risk analysis techniques in SIDs or not. Findings of this study support the view that perceived environmental uncertainty influences the extent of use of risk analysis techniques in SIDs. This finding is also in conformity with Ho and Pike’s (1998); Verbeeten (2006) findings. However, it is in quite contrast to Shimin Chin’s (1995) findings. Similarity and contrast in findings of the study are due to the items considered to measure the perceived environmental uncertainty and the operating environment and organisational climate. If a company operates its business in a predictable environment, then the DMs perceive the risk to be at lower level, and this leads to low level of the use of risk analysis techniques. On the other hand, if a company operates its business in an unpredictable environment, then the extent of use of risk analysis techniques is high, because it wants to reduce the level of risk in order to achieve the objective of an organisation. Factors that affect the investment decisions could be classified into two categories viz., quantitative and qualitative factors. The quantifiable factors affect the cash flow estimates, which in turn affect outcome of the projects, whereas qualitative factors affect decision makers’ confidence in incorporating uncertainties in estimation. Moreover, the use of risk analysis techniques and choice of techniques varies with the level of uncertainty associated with the project (Courteny, Kirkland and Viguierie, 1997). If a firm faces more environmental complexity, the activities of the firm should be decentralised. Therefore, project ideas are being identified at lower levels of a firm (Paolo Maccarrone, 1996). To conclude, in addition to the outcome of the project, it affects the internal structural changes of the firm (Jauch and Kraft (1986)), thereby affecting the performance of the firm.
Perceived Company Performance

Performance of a company is an important factor which motivates the DMs to conduct risk analysis. Understanding the present performance helps the DMs in making better decisions. If perceived performance is good, DMs tend to lay more emphasis on risk analysis, spend resources to do thorough analysis, and estimate the cash flows very accurately and objectively in order to maintain the present position. The path linking perceived company performance and the extent of use of risk analysis was found to be significant. This indicates that better the perceived performance of a company, higher is the level of use of risk analysis in SIDs. This is in conformity with Ho and Pike’s (1998) findings. If perceived company performance is low, it may result in the rejection of a good investment project, thereby affecting the potential growth, market share, and future performance. The perceived environmental uncertainty and perceived company performance affect the degree of rationality of a decision (Cyert and March, 1963). If they are ignored, then the resulting irrationality affects not only the particular projects, but also the company as a whole. Thus, in order to ensure wealth maximising decision making, it is necessary to adjust the analysis to account for the varying degrees of risk of a project, which increases the use of risk analysis techniques. The strategic investment process and its associated methods of financial analysis depend ultimately upon what influences the behaviour of DM in allocating resources among competing investment alternatives in a given context (Pike, 1988; Kannadhasan and Nandagopal, 2010). The DMs’ behaviour differs from one individual to another which has influence on the decision outcomes. Such differences in behaviour arise because of the DMs’ characteristics such as tenure, experience, gender, risk propensity, self-efficacy and so on, that are closely associated with many cognitive bases, values and perceptions (Kannadhasan and Nandagopal, 2008). This indicates that the extent of use of risk analysis techniques purely depends on how accurate and precise the DMs’ perceptions on the environment and company performance are. The author believes that the following are worthy of further investigation: (1) this study can be extended to make comparison among different industries (Inter-industry comparison). (2) This study can be extended to identify the other variables that could influence the extent of use of risk analysis in SIDs and how these variables could influence the extent of use of risk analysis of different types of investments.

REFERENCES


