

Determinants of Goan SME Firms Going Global: Theoretical and Empirical Approach

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Executive Summary

Choice of entry mode has been widely recognized as one of the critical decisions in a firm's internationalization. However, most of the research primarily focuses upon Western multinational enterprises rather than Indian state small-medium sized enterprises (SMEs). In the past, several major theories have been proposed but none of them is able to explain the choice from the complete set of entry modes.

The purpose of this research is to understand the various entry modes, improve the selection decision, and explain the entry mode strategies of Goan SME firms in the international markets. A firm can deploy a variety of arrangements (entry modes) like wholly-owned subsidiaries, joint ventures, contracts, and export modes to implement its product market strategies in foreign countries. Each of these arrangements entails decisions about the location of production facilities and/or marketing operations, and the type of ownership of these operations. This study examines the internationalization behaviour of 200 randomly selected Goan SME firms. It examines the factors associated with each theory and seeks to integrate them to gain a better understanding of how SME businesses succeed in the international marketplace. The determinants under examination are also substantiated with the identification of several international SME entry mode models. The nine groups of determinants are: International planning experience, firm size, R&D intensity, competitive advantage, degree of standardization, demand intensity, economic development, regulation, and political risk. The proposed framework is an effort to fill the gap between theory and practice of entry mode choice. The framework is broader in scope than the extant theories because it transcends across industries and nationalities of firms.

The primary objectives of the study are: (a) to identify the descriptive determinants that have been strongly associated with SME internationalization entry behaviour; and (b) to determine if the propensity of Goan SME firms will be significantly predicted using specific empirical analysis.

Data for the study were obtained through a questionnaire used in numerous previous theories.. The study used multivariate logistic regression analysis. The results from the hypothetical foreign market entry situation strongly support the propositions that firm-specific resources and host country factors, viewed as a source of sustainable competitive advantage, encourage involvement in foreign markets. One broad implication for managers is the importance of both analysing the characteristics of the chosen product market and critically examining the firm's capabilities in order to focus on what it does best, build upon it and, where necessary, complement this through collaboration with others.

KEY WORDS

Internationalization

Entry Mode

Small and Medium Enterprises (SMEs)

Firm Variables

Host Country Variables

Small & Medium Enterprises (SMEs) play a major role in global economic growth in terms of their contribution to industrial employment, industrial output, and exports. They occupy a place of strategic importance in the Indian economy as well. However, since the early 1990s, Indian SMEs have been exposed to intense competition due to the accelerated process of globalization. Goan small- and medium-sized enterprises too play a vital role in generating economic well-being for most countries as well as the state economy. SMEs represent more than 96 per cent of the total number of Goa's enterprises, provide 77.6 per cent of the total employment, contribute to 10 per cent of Goa's exports, and constitute 26.5 per cent of the investment and 37 per cent of the value added in Goa (IBEF, 2009). The State Industrial Policy, 2008 aims to achieve accelerated industrial development, catalyse economic growth, ensure balanced regional growth, protect the environment, and create sustainable employment for local youth in the state. Its thrust is on promotion of specific industries, particularly in the small and medium industrial sector. In terms of per capita deposits, Goa is ranked No. 3 with \$2,482 against the all-India figure of \$420. The state is at the forefront of attracting investments, which have come in areas like mining, tourism, IT and ITES, pharmaceuticals, and manufacturing including sectors such as paints and fertiliser. The main industrial centres in Goa – Verna, Ponda, Vasco, Mormugao, Bicholim and Kundaim – are shown in Table 1.

Table 1: Industrial Centres in Goa

Industrial Centres	Products/Industries
Verna	Rubber, plastics, ITes, pharmaceuticals, electronics and telecommunication equipment
Bicholim	Iron and steel-based units
Kundaim	Rubber, plastics, petroleum & coal products
Mormugao	Pharmaceuticals
Vasco	Shipbuilding and ports

Source: Goa Economic Indicators, Goa Chambers of Commerce

With increasing competition from local and foreign competitors over the last decade, more and more Goan manufacturing companies are being forced to look outside of Goa for survival. At the same time, Goan SMEs could be more involved in international activities because of the challenging and competitive global market conditions,

new developments in transportation and communication technologies, and the rising number of people with international experience (Svante, 2004).

SMEs face certain disadvantages when compared to large enterprises, which may inhibit their growth in the local market as well as discourage them from pursuing international opportunities (Calof and Beamish, 1995). Obviously, a major impediment to SME expansion, in comparison to large firms, is the lack of resources. Size has also been viewed as an obstacle to internationalization of small firms, as well as market size of the host country. SMEs in their early internationalization process faced some intensive problems. Lack of economy of scale, lack of financial and knowledge resources, and aversion to risk-taking have been identified as the three critical constraints to the rapid internationalization of SMEs. Use of technology for competitive advantage and networking are suggested as competencies for developing a range of alliances and collaborative partnerships (Freeman, Edwards and Schroder, 2006). The purpose of this research is to investigate the factors that underlie internationalization of small firms and to identify the most significant factors that are related to the internationalization process of small firms in Goa. Earlier empirical research has concentrated on established firms in a few industrial sectors of different Indian states but has not taken Goan firms into account. Therefore, there appears to be a gap in empirical research in terms of combining these variables to explain the internationalization process and studying the effect of these variables on the Goan SME sector.

MODELS OF INTERNATIONALIZATION

An examination of the various theories of the international firm will help us analyse the various factors that influence establishment and sustainability of international firms.

The Uppsala model emphasizes on gradual acquisition, integration, and use of knowledge about foreign markets for internationalization (Johanson and Vahlne, 1977; 1990). According to the model, lack of knowledge is an important obstacle to the development of international operations and such knowledge can be acquired mainly through international operations. The growth of SME business exports is fairly important for increased internationalization. Experience and knowledge about foreign markets lower perceived risk and transaction costs, thus

increasing the commitment to foreign markets (Reid, 1983)...

Oviatt and McDougall (1995) propose a new theory of small business internationalization, which describes the international new venture model. The success of international new ventures (Moen and Servais, 2002) depends on the international vision of the firms from inception, the innovativeness of the product or service marketed through a strong network, and a tightly managed organization focused on international sales growth. Decreasing transaction costs mean having unique assets or technology that would lead to internal advantages and help the small firms go international.

According to Buckley and Casson (1976), an international theory is based on the firms' wish to protect all the intangible assets, on the one hand, and exploit them through sales in the larger market, on the other hand. A firm will continue to expand in the domestic market until costs of expansion in the domestic market become higher than the costs of expansion in the international markets (Buckley, 1990). This usually happens when the domestic markets get saturated. However, if transaction costs incurred for growing domestically are high due to an insufficient domestic market, the firms will have the option to grow through an international expansion (Buckley, 1993).

The Uppsala and Stages Theory models are based on the nature of the underlying variables like management characteristics, firm characteristics, and market environment characteristics in different transaction costs which would force a firm to internationalize. The international new venture depends mainly on one variable, knowledge-based product, which has high research and development inputs and is therefore likely to internationalize faster. The external and domestic market factors, such as market structure and market growth, also stimulate internationalization of firms.

Hypothesis

The paper will hypothesize about the relationship between the internationalization of Goan SMEs and nine independent factors: International planning experience, size of the SME, R&D intensity of the SME, competitive advantage of the SME, degree of standardization, and host country factors including demand intensity, economic development, regulation, and political risk.

Size, experience, political risk, and regulation of the firms which may increase international activities are derived from the Uppsala and Stages models. The R&D intensity of firms that may affect international development, is derived from the literature on international new venture and international theory. Demand intensity, economic development, and level of competition are derived from the international theory. Planning and degree of standardization of marketing mix in small firms are derived from Madsen (1989), and Walters and Sammie (1990), who argue that planning is crucial not only for the survival of small firms but also for their growth in the domestic and international markets.

International Planning Experience

Planning is often considered to be a vital factor in SME's ability to survive and grow. Experience of multinational businesses is an invaluable resource that can also be a source of competitive advantage. Firms with little international business experience tend to exaggerate potential business risks and underestimate potential returns. A considerable amount of empirical research has been done on the relationship between planning and internationalization of firms and planning has been found to have a positive effect on the internationalization of firms (Aaby and Slater, 1989; Mueller and Naffziger, 1999). The firm's planning activities are related to its resource capabilities and allocation of resources to international market structure, which have been found to drive internationalization. The greater the ability of the Goan SMEs to make international planning operational, the faster the firm will internationalize. Based on these arguments, we propose the following hypothesis:

- H1: The higher the SME's international planning experience, the greater the level of involvement of SME firms in internationalization.

Firm Size

Firm size is perhaps one of the most studied variables that relates to internationalization of a firm. The Stage Theory of Internationalization assumes that small firms internationalize stepwise (Bilkey and Tesar, 1977; Reid, 1983). The size of a firm often indicates its competitive advantage in financial, physical, human, technological or organizational resources. The majority of small firms face severe resource (financial, technological, and personnel) constraints. Larger firms are able to commit greater

resources to international activities and gradually increase their international sales. Based on these arguments, we propose the following hypothesis:

- H2: The greater the size of an SME firm, the higher the level of involvement in internationalization.

R&D Intensity

The International New Venture theory focuses on knowledge-based products or assets that have high research and development inputs. A company that invests in R&D will seek a return on its investment by capturing as large a market as possible and this helps in accelerating international expansion. It has been observed that high-technology small firms expand its market through internationalization. Buckley and Casson (1976) have proposed that high levels of intangible assets are related to high levels of internationalization in order to get a reasonable return on investment. We propose the following hypothesis:

- H3: The higher the degree of R&D intensity of an SME firm, higher will be its level of involvement in internationalization.

Competitive Advantage

Whitelock (2002) suggests that low cost can be maintained and margins preserved in the long term. A SME firm will try to reduce its production costs by accepting cheaper components, following standard production processes, and seeking a higher market share in order to reduce unit costs. Several authors have suggested that SME firms entering the market with products representing incremental innovations have achieved a higher relative market share than those that enter with products similar to the active competitors. This usually happens when the domestic markets get saturated. Therefore, the growth of the domestic markets and the level of competition in the domestic markets could be important factors affecting the internationalization of the firms. We propose the following hypothesis:

- H4: The adoption of low cost-approach to competitive advantage of an SME firm will lead to a higher level of involvement in internationalization.

Degree of Standardization

The SME firms with an international mindset adopt three basic types of products, if they want to sell their products globally: Universal products (physically identical in different markets); Modified products (substantially similar in all the various overseas markets); and Country tailored products (specifically localized for different markets). This strategy of standardization leads to achieving greater efficiency and thereby gaining economies of scale. Johanson and Wiedersheim-Paul (1975) assume that highly standardized products seem to have easy access to international markets to sell largely on price. Therefore, adopting the standardization approach to serve the international market is desirable because developing an identical product across national markets can increase the company's trade (Yip, 1996). This lead to the following hypothesis:

- H5: The higher the degree of product standardization in international marketing, the higher the involvement level of the SME firm in internationalization.

Host Country Factors

Demand Intensity

The demand in an international market can be defined as the actual demand of the existing customers and the potential demand of the local market (Fajnzylber and Fernandes, 2005). A firm can generally be expected to be more knowledgeable regarding its demand when it enters a global IT market for developing a global sourcing site, or serves its domestic customers who have already invested in that market. This means that the firms would prefer to maintain control over their operations and choose an entry mode with high involvement level and resource commitment (Erramilli and Rao, 1990). When a future host country's demand for an MNC's product is uncertain, existing works indicate that an MNC may be reluctant to invest substantial resources in the country to effectively adjust to oscillating conditions and to enhance its ability to exit the market without incurring substantial sunk costs should demand fail to reach a significant level (Yang-Ming Chang, 1990).

- H6: The higher the host market demand intensity, the higher the level of the SME firm's involvement in internationalization.

Economic Development

The indicators of economic development include among others, gross domestic product, gross national product, communication network, per capita income, exchange rate, transportation system, and energy supply. The economic development variable reflects the extent of development in the host country that makes its market more or less attractive to the MNE. Nations may vary in all these areas and in other areas such as energy consumption, level of education, and infant mortality. The capabilities of local firms *vis-à-vis* all these economic development factors would lead the MNE to choose a joint venture entry mode (Bell, 1996; Gomes-Casseres, 1989; Kobrin, 1987). This leads to the following hypothesis:

H7: The greater the degree of economic development in the host market, the higher the level of involvement of internationalization of the SME firm.

Regulation

SME firms involved in overseas markets might face government regulations different from those of the home country. Researchers who have focused on joint ventures in developing countries consider the relationship between ownership, control, and performance. Joint ventures are characteristically more stable over time and frequently lead to ownership equity which is desirable in many developing countries where, in most cases, the firms tend to have a minority ownership position. This is a result of the regulations in force in these countries (Lee and Beamish, 1995). This leads to the following hypothesis.

H8: The greater the difference in regulations between the home country and the host country, the lower the degree of the SME firm's involvement in internationalization.

Political Risks

Political risks could arise from the adverse changes in laws and regulations against a foreign firm in the host country. These could be of a regulatory nature such as the imposition of tariffs or political in nature such as unrest caused by pressure groups. In its severest form, political risks may cause confiscation of assets without adequate compensation. Political stability is one of the most important factors considered in the decision to become involved overseas. Political instability can constrain the firm to a

limited number of markets or a specific type of entry mode (Aharoni, 1966). SME firms could control the political risk factor by choosing low control modes that help to avoid resource commitment and increase strategic flexibility (Anderson and Gatignon, 1986). Nevertheless, a high degree of control is required in foreign markets where there is a combination of high country risk and an accumulation of firm-specific assets. A number of empirical studies reveal that in the case of high-risk host countries, international firms would try to avoid high control entry mode. However, when international firms have a good sales position in the host country, they may select a high entry mode such as a wholly-owned subsidiary (Gatignon and Anderson, 1988; Kim and Hwang, 1992; Bell, 1996). Others believe that firms would select a high degree of control entry mode in the case of high-risk host countries (Agarwal and Ramaswami, 1992). Furthermore, political instability in developing countries is another threat facing international SME firms. This study points out that in a politically unstable country, when a large amount of fixed capital is required, international SME firms ought to select the joint venture mode. This reduces their financial risk, and also provides them with the local partner's assistance. This leads to the following hypothesis:

H9: The higher the political risk in the host country, the lower the degree of SME firm's involvement in the overseas market.

METHODOLOGY AND RESEARCH DESIGN

A survey research method was used to collect data from SMEs in Goa. The survey was conducted during August 2007-May 2009. A survey methodology was considered appropriate as relevant published data were either not available in the country or did not capture the specific variables of interest. The sample consisted of firms listed in the GIDC (Goa Industrial and Development Corporation). From this directory, industrial sectors which met our predetermined criteria were selected (Table 2).

Table 2: Number of Firms Selected for the Study

Industrial Sector	Number of Firms
Food and Beverages	62
Mineral and Steel sector	45
Pharmaceuticals	55
Others (Consumer durables, Chemicals & Fertilizers)	50
Total	212

A random sample of 212 firms from the GIDC directory that agreed to take part in the study formed the research sample. A total of 204 usable surveys were received, which provided a response rate of 62.5 per cent.

Survey Instrument

Data for the analysis in this study were collected from 326 owners/managers of SMEs (completed and partially completed) that reported international involvement. The interest of this study is in observing the decisions made by the managers at the time of formulating a strategy. Thus this study is appropriately based on the perception of the managers involved in such decision-making. The key informant approach was used for data collection. The role of a key informant is to aggregate information about SME's organizational activities or outcomes; hence it is necessary to select informants on the basis of expertise. Accordingly, informants for this study were upper level managers who were usually heavily involved in formulating international market entry strategies. The managers had direct responsibility for international operations. We interviewed one to three managers from each firm, the purpose of these interviews being to seek information on various aspects of internationalization. No pre-formulated questions were provided to the respondents; thus they were free to describe in their own words their firms' internationalization processes. Consistent with studies of entry mode strategies published previously, a convenience sample was used in this study. Such samples are acceptable for theory testing. These owners/managers and their businesses were randomly selected from the register of Small and Medium Industry Development Organization (GIDC). The questionnaires were mailed to the owners or top executives of 212 firms with a cover letter explaining the purpose of the study and a self-addressed envelope. The follow-up procedures consisted of a second round of mailing, two weeks after the original mail was sent and a phone reminder to each non-responding firm approximately three weeks after the original mailing. Before the interview, a pre-tested and structured questionnaire developed by the authors was completed by the owners/managers of the sample small firms to increase the reliability and validity of the data so obtained. In order to test the possible non-response bias, early respondents were compared with late respondents as it was suggested that late respondents, especially after follow-up, might be relatively similar to non-respondents (Armstrong and Overton, 1977). We found no statistically

significant difference between early and late respondents for the variables under study. Most questions were asked using five-point Likert-scale. Factor and reliability analyses were used to assure construct validity of the measures for the firms selected. All measures were also examined and verified for face validity by four industry executives experienced in international marketing decision-making.

Characteristics of the Sample

The characteristics of the sample are summarized in Table 1. According to the data, nearly 38 per cent of the firms in the sample employed fewer than 150 persons and only about 40 per cent employed 150-250 persons. About 84 per cent of the firms were less than 30 years of age. Only about 16 per cent of the firms were over 30 years. Almost 44 per cent of the firms had some degree of international experience while 40 per cent had considerable international experience in the sector. Almost 94 per cent of the firms sold 80-100 per cent of their products to the foreign markets. However, firms participating in export trade had a high percentage of exports in relation to their total sales.

Table 3: Sample Profile

No. of Employees	
100 or Less	46
101 to 1000	82
Over 1001	84
Total	212
International Experience	
Less than 3	33
4 to 10	95
Over 10	84
Total	212
Company's Age	
10 or less	126
11 to 20	52
21 and above	34
Total	212
Annual sales	
Less than \$10 mil	94
\$11mil to \$500 mil	72
Over \$500 mil	46
Total	212

Source: Field Survey

The companies in the sample were all manufacturing companies in the following sectors: Mineral and steel sec-

tor (21%), food processing and agro-based industries (29%), pharmaceuticals and drugs (25.9%) and other sectors like consumer durables and chemical and fertilizers (23%). In fact, the profile of the sample firms reflects the characteristics of the export manufacturing sector in Goa. Each of these sectors consists largely of SMEs and reflects substantial degree of internationalization.

Examination of Measurement Items

Before testing the hypotheses, we made one more effort to validate the measurement items because some of them were being used for the first time. Two techniques – Cronbach’s alpha and factor analysis – were used to assess and select the final measurement items for hypotheses testing. Factor analysis using component analysis with varimax rotation, was conducted to assess the degree to which the data met *a priori* notion about the structural relationships among the variables, based on theoretical support and previous research. The initial factor analysis was meant to investigate the unidimensionality of the variable, that is to see if the variable would load on the right constructs. The maximum number of factors were not set for initial factor analysis. The reason for not setting maximum number of factors at the initial run was to see if the variables would load on the expected total number of factors, which was 9.

The measurement items loaded on all the factors as we expected, with a minimum factor loading criterion; this is the lowest factor loading considered practically significant. The remaining items were then subjected to Cronbach’s reliability analysis to assess the degree of

consistency among the multiple measures of each construct. The cut-off point of 0.70 for theory testing as recommended by Nunnally and Bernstein (1994) was used to select the measurement items retained for the constructs and to test the hypothesis. Measurement items that did not significantly contribute to the coefficient alpha were dropped. The selected items and constructs are reported in tables. The scaled multiple-item measures, as well as their Cronbach’s alpha values, are presented in Table 4. After establishing internal consistency and validity of the multi-item scales, the respective items were summed up to create composite scales. The Kaiser-Meyer-Olkin measure of sampling adequacy is 0.74, which is characterized as middling and greater than mediocre. The Bartlett test of sphericity is less than 0.00005. A significance level of less than 0.05 for the Bartlett test indicates that data are acceptable for factor analysis. From this we conclude that our research sample size is enough to go for further analysis. The correlation matrix of independent variables gives no indication of major multicollinearity problems. Table 5 presents the descriptive statistics and the correlation matrix. A review of the correlations between the independent variables indicates that multicollinearity is not a problem. This conclusion is supported by the diagnostic information from the regression models. To check for multicollinearity between the independent variables, we calculated the variance inflation factors and determined that multicollinearity problems were unlikely (the highest variance inflation factor is <2.0, well below the benchmark of 10, as noted in Table 6). All assumptions are satisfied, suggesting no serious deviations from normality and no serial correlation of errors in this study.

Table 4: Reliability Analysis for Operational Measures

Factors	Measurement Scale	Item-Total Correlation	Cronbach’s Alpha
• International planning experience	1 = Not affected at all and 5 = Always affected	0.715	0.715
• Firm size	1 = Not flexible and 5 = Very flexible	0.851	0.751
• R & D intensity	1 = Not flexible and 5 = Very flexible	0.816	0.794
• Competitive advantage	1 = Not flexible and 5 = Very flexible	0.794	0.835
• Degree of standardization	1 = Not flexible and 5 = Very flexible	0.862	0.842
• Host country risk			
i) Demand intensity	1 = Not affected at all and 5 = Always affected	0.895	0.8149
ii) Economic development	1 = Not affected at all and 5 = Always affected	0.813	0.7971
iii) Regulation	1 = Not affected at all and 5 = Always affected	0.927	0.851
iv) Political risk	1 = Not affected at all and 5 = Always affected	0.742	0.753

Source: Field Survey

Table 5: Means, Standard Deviations and Spearman Rank Order Correlations Matrix

Variable	Mean	S.D	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10
X1: Degree of involvement	4.19	.84	1.00									
X2: International planning	4.17	.84	.237**	1.00								
X3: Firm size	4.04	.89	.225	.176	1.00							
X4: R & D intensity	4.40	.76	.122*	.014	.080	1.00						
X5: Competitive advant	4.22	.83	.242**	.068	.017	.014	1.00					
X6: Deg of standardization	4.44	.80	.082	.087	.131*	.10	.145	1.00				
X7: Demand intensity	4.43	.81	.242*	.149	.065	.178	.048	.036	1.00			
X8: Economic develop	4.50	.75	.358	.152	.073	.154	.350	.028	.031	1.00		
X9: Regulation	4.36	.78	-.261	.183	.124*	.048	.036	.025	.075	.028	1.00	
X10: Political risk	4.32	.75	.265**	.236	.156*	.085	.072	.063	0.32	.021	.012	1.00

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

Table 6: Results of Regression Analyses

Variable	Dependent Variable-Beta			
	Model 1—High Control Entry	Model 2—Low Control Entry	Model 3—Full Model	VIF
International planning	0.373***		0.329***	1.072
Firm size	0.049		0.048	1.142
R & D intensity	0.094		0.154**	1.167
Competitive adv	0.034		0.056	1.142
Deg of standardization	0.155**		0.197***	1.153
Demand intensity	0.236***		0.168*	1.117
Economic development		0.228**	0.105	1.396
Regulation		-0.089	-0.083	1.391
Political risk		0.489***	0.414***	1.348
<i>R</i>	0.510	0.444	0.634	
<i>R</i> ²	0.261	0.198	0.402	
Adjusted <i>R</i> ²	0.233	0.169	0.353	
<i>F</i>	9.199***	6.816	8.249***	

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Measures

Dependent Variable

The overall aim of the study is to examine whether the various factors are related to firms' internal and external environments and can explain firms' involvement in international activities. The analysis therefore contains a measure of the internalization of the firms as the dependent variable. In this study, internationalization of the firms is defined as the level of international involvement. (Cavusgil, 1984; Bonaccorsi, 1992; Sullivan, 1994; Calof and Vivers, 1995). International entry mode is conceptualized as a dichotomous decision between a low control entry mode and a high control mode. As per Table 6, high control involves some degree of ownership, whereas low

does not. Sole ownership and a wholly-owned export subsidiary were used to operationalize high control entry mode, while joint venture, licensing, franchising, or management contract were used to operationalize low control entry mode.

Independent Variables

In this study, there are two sets of variables:

- **Firm variables:** Internal firm variables such as the size, planning, R&D intensity, competitive advantage, and degree of standardization.
- **Host country variables:** External environmental variables such as home country political risk, host country regulations, demand intensity, and economic development.

To test our hypotheses, we used logistic regression, which is common in studies related to entry mode choice (Davidson and McFetridge, 1985; Gatignon and Anderson, 1988). Logistic regression is recommended when:

- the depended variable is dichotomous
- there are qualitative and quantitative independent variables
- the underlying assumptions of multivariate normality may not be met (Hair *et al.*, 1998).

The logistic regression equation we tested was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \dots + \beta_N X_N + e$$

where,

Y is entry mode (high control entry mode-low control entry mode)

X_1, \dots, X_N are independent variables

B_1, B_2, \dots, B_N are coefficients of the independent variables

B_0 is the intercept term

e is the error term.

In relation to our hypotheses, nine independent variables are expected to influence the international activities of small firms. This study examined the relationship of all these variables with the internationalization of small firms through use of Pearson correlation analysis (Table 7). Then the variables were tested in a combination where regression analysis was used to ascertain if a significant amount of the variation in the internationalization of small firms could be explained by these variables.

Table 6 reports the adjusted R^2 for the full model. Beta coefficients for the full model are also presented in Table 7. As may be seen in Table 6, the fitted regressions are significant at one per cent level in terms of F statistics.

H1: The international planning experience plays a very significant role in internationalization of Goan SME firms. The international planning shows positive relationship with Pearson analysis (0.237, $p < 0.01$) and also in regression modelling. Our paper supports the Uppsala Stage Theory of Internationalization. In fact, understanding new cultures, languages, and distribution system does take time. This is a gradual process and gaining knowledge and experience may consequently reduce the perceived risk of operating in foreign markets and motivate the international expansion of Goan firms.

Table 7: Pearson Correlations for the Hypotheses

Hypotheses	Independent Variable	Pearson's Correlation	Correlation
H1	International planning	Pearson's correlation	0.237**
		Sig (two-tailed)	0.000
		N	204
H2	Firm size	Pearson's correlation	0.225**
		Sig (two-tailed)	0.000
		N	204
H3	R&D intensity	Pearson's correlation	0.122*
		Sig (two-tailed)	0.017
		N	184
H4	Level of competition	Pearson's correlation	0.242**
		Sig (two-tailed)	0.091
		N	195
H5	Deg of standardization	Pearson's correlation	0.082
		Sig (two-tailed)	0.000
		N	185
H6	Demand intensity	Pearson's correlation	0.242**
		Sig (two-tailed)	0.000
		N	192
H7	Economic dev	Pearson's correlation	0.358
		Sig (two-tailed)	0.000
		N	198
H8	Regulation	Pearson's correlation	-.261**
		Sig (two-tailed)	0.000
		N	183
H9	Political risk	Pearson's correlation	.266**
		Sig (two-tailed)	0.000
		N	198

Notes: *Correlation is significant at 0.05 level (two-tailed)
** Correlation is significant at 0.01 level (two-tailed)

H2: The size of the firms demonstrates a significant and positive relationship with foreign sales in the Pearson correlation analysis (0.225, $p < 0.01$).

The size of the firms also show a significant positive relationship with internationalization of the firms. We have found strong support for H1. Our research supports the Stage Theory of Internationalization, suggesting that growing larger firms will be able to commit greater re-

sources to international activities and gradually increase their share of sales derived from the international markets. Larger firms could, therefore, have more resources available for developing their international activities.

The results of prior empirical analyses are mixed regarding the question of whether the SME firm size and planning experience is important for internationalization. Abdel-Malek (1978) and Svante (2004) have not found consistent evidence to associate certain levels of export orientation with firms of a given size and experience. Moini (1995) and Mockaitis, Vaiginiene and Giedraitis (2005) state that firm size has influence on the firm's export success.

H3: R&D intensity measurement demonstrates a positive and significant relationship with foreign sales in the Pearson correlation analysis (0.122, $p < 0.05$). The R&D variable shows a significant relationship with internationalization of the firm. We have thus found support for H3. We have also found a significant positive relationship between the R&D intensity and the growth rate of the market (0.135, $p < 0.05$). Higher level of domestic market growth and greater domestic market opportunities lead the firms to undertake more R&D activities. The other studies support this hypothesis. Tesar (1977) has found that heavy exporters, those with greater than 10 per cent of sales from export, are more concerned with the development of new products and are technologically more advanced. Wolf (1977) has studied the relationship among innovation, size, and internationalization. The independent variables are the percentage of scientists and engineers in the industry as a percentage of total employment and the average size of the firms in the industry. The study has found that the technical manpower variable is only statistically significant to the declared export propensity.

H4: The level of competition in the domestic markets is an indication of the size of the available domestic markets, which is a measure of the domestic market saturation. The level of competition is not statistically significant in the correlation analysis, although it has a positive sign as predicted in the hypothesis. The level of competition variable is not significant in the model either. We have found no support for H4. It is possible that the firms are unaware of the market structure or they are too small in proportion to the market to have a significant impact on foreign sales. The level of competition in the domestic markets is, therefore, not a factor in explaining the degree

of internationalization of already internationalized SME firms in GOA.

H5: The degree of standardization of SME products in international marketing mix of the firms demonstrates a significant and positive relationship with foreign sales in the Pearson correlation analysis (0.082, $p < 0.01$). The degree of standardization of the SME firms also shows a significant positive relationship to the internationalization of the SME firms. We have thus found strong support for H5.

H6, H7, H8, H9: All the host country factors – degree of demand intensity, economic development, and host country political risks for the SME firms – are positively correlated with the degree of involvement in internationalization (0.242, 0.358, 0.265, $p < 0.01$). International regulation demonstrates a negative and significant relationship with the Pearson correlation analysis (-0.261, $p < 0.01$). When this variable enters the regression model, it shows significant relationship and explains most of the variance. All the above factors of the Goan SME firms show a significant positive relationship to the internationalization of the firms. We have thus found strong support for the hypotheses. Results are mixed regarding the question of whether demand intensity, economic development, international regulation, and political risks are important for internationalization.

The outcome of the combined logistic regression estimation results is summarized in Table 8. As the Table shows, there is empirical support for all the propositions. Table 6 presents the summary of the output from the logistic regression with all independent variables. Table 8 shows that the model is statistically significant (Model $\chi^2 = 134.016$; $p < 0.00005$). The model correctly classifies 91 per cent of the cases. This statistical outcome suggests that the independent variables have significant impact on the dependent variable.

There is a large body of literature to support our findings related to the relationship between planning activities and international sales. The process model assumes that lack of knowledge is an important obstacle in the development of international operations and that knowledge can be obtained through international operations (Johanson and Vahlne, 1977). Cavusgil (1984) finds export expertise to be a strong predictor of internationalization. The study also suggests that active or committed

Table 8: Logistic Regression Model

Variables	Coefficients	Intercept	WALD (significance)	Model χ^2 (significance)	Correct Classification(%)
Firm size +	1.523	-3.935	10.25($p=0.0002$)	12.36($p=0.0005$)	81.54
Int planning exp**	0.756	-2.521	4.15($p=0.14$)	2.41($p=0.12$)	71.69
Firm size*	0.722	-2.368	6.84($p=0.005$)	5.54($p=0.005$)	76.92
R & D intensity**	0.685	-0.256	7.36($p=0.01$)	5.62($p=0.0097$)	77.69
Competitive adv**	0.557	-0.265	11.58($p=0.0005$)	14.65($p=0.0005$)	78.46
Degree of standardn*	1.548	-1.564	8.45($p=0.02$)	4.35($p=0.0205$)	70.00
Demand intensity*	0.443	-2.624	16.35($p=0.0005$)	21.36($p=0.0005$)	76.15
Economic dev*	0.621	-2.375	24.63($p=0.02$)	14.36($p=0.005$)	63.08
Regulation**	0.452	-1.203	39.45($p=0.0005$)	62.36($p=0.0005$)	87.23
Political risk**	0.652	-2.301	14.36($p=0.01$)	12.35($p=0.0005$)	61.23

Notes: + = full control; Significance * $p<0.1$; ** $p<0.005$; N=78; Model $\chi^2=134.016$ with $df=12$ -2 log likelihood=49.568; correct classification rate=91%.

Source: Field Survey

exporters have special export departments and perform foreign market researches. Madsen (1989) finds a significant relationship between planning and export performance of the Indian small- to mid-sized manufacturing companies. Walters and Sammie (1990) reveal that export-related planning and information-gathering activities are significant with the export proportion of sales for small and large exporters.

MANAGERIAL IMPLICATIONS

The findings of this study demonstrate that Goan SME managers make entry mode choices based on consideration of firm context and host country factors that provide the SMEs competitive advantage in the target foreign market and also enhance their resources. This model could correctly predict most of the entry mode choices in the survey. Firm context and host country factors appear to be good predictors of entry mode choice. Managers can draw other useful lessons from this study. The level of control that each entry mode provides should be carefully considered in the light of company goals and objectives together with the nature of the products. Previous research studies have revealed that managers often use unsophisticated methods while making international marketing entry decision.. This study highlights the importance of firm-specific and host country factors as the determinants of entry mode choice. While cost efficiency is an important factor, it is not the only consideration. The most efficient mode of entry is the one that balances cost efficiency with effective marketing. Managers should identify their firm-specific resources that could be the

source of potential competitive advantage in a new foreign market and use them to develop their entry mode strategy. Managers may overlook problems and underestimate differences between the domestic market and the foreign markets.

RESEARCH IMPLICATIONS

The internationalization of the framework developed in this research study appears to have good explanatory abilities. It is important to examine the interaction among variables in addition to the main effects. Some variables that did not have main effects or had an unexpected sign for the coefficients, turn out to have a significant effect in the total effect test, together with the expected sign for the coefficient. Therefore, researchers should be careful not to base their conclusion on main effects alone, unless their objective is to test for only main effects. Underlying relationships among variables should be explored and the results of such relationships considered in interpreting results of data analysis.

LIMITATIONS AND FUTURE RESEARCH

Although this study has made some contribution to the understanding of foreign market entry strategies, it is not without limitations. The extent to which the results are generalized in this study is a major issue. A convenience sample, a non-probability sampling technique, has been used, which means that the sample results may not be representative of the population of foreign entries by Indian firms for the period studied. It is not appropriate to generalize findings based on a convenient sample, which

was actually used because of the difficulty in obtaining a comprehensive sample frame. Previous research on this topic encountered similar difficulties. Future research studies are more likely to face this challenge And hence effort should be made to overcome this problem.

Further, correlation analysis used in the study shows the relationship between two variables at one point in time but does not allow for any conclusion about the direction or causality of the relationship and changes over time. A longitudinal study would be useful for addressing these limitations and answering the question about the direction of causality. Despite the fact that extensive research of the existing literature was carried out to identify the variables in the model used, there might be other variables such as general economic conditions, or other firm, management or environmental variables which should also be analysed.

While the empirical findings in this paper are interesting, caution should be taken while generalizing the findings beyond the scope of this study. Future research attempts should extend the generalizability of the results found in this study by using comparative samples of firms.

CONCLUSION

The role of small and medium firms has now become more important than ever. Therefore, it is important to understand the factors that relate to the internationalization of SMEs. The aim of this research was to test the relationship of a number of independent variables, identified through literature review, with the internationalization of small firms. These variables were tested individually through the use of a correlation analysis to find out if they had a relationship with the measurement of internationalization of small firms. The variables were also tested by using regression to see if a model could be developed by combining these variables.

A total of nine hypotheses were proposed and developed from a review of literature. The results from the analysis are as follows: The H1, H2, H8, and H9 hypotheses expected a positive correlation between the extent of international planning experience, size, political risk, and regulation of the host country and internationalization of firms. These hypotheses are supported by our data and the results are in line with the Uppsala model which argues that international activity will create learning and more knowledge on internationalization. By growing

larger, firms will be able to commit greater resources to international activities and gradually increase their share of sales derived from the international markets. Hence, the larger the firm, the more are the resources available for developing the firm's international activities. According to the Stage theory model, firms take time for understanding new cultures, languages, and distribution systems in order to overcome the liability of newness and smallness. Demand intensity of the firms is, therefore, important in explaining the internationalization of firms. The measure of intangible asset variables such as R&D intensity was significantly correlated with foreign sales and was significant in the regression model too. This supports the International New Venture theory which argues that possession of unique assets or technology is the key to internal sustainable competitive advantages, and forces the small firms to go international. Higher level of intangible assets and lower level of domestic growth, therefore, lead the firms to internationalize faster. The level of regulation in the domestic markets is, therefore, not a factor in explaining the degree of internationalization of the already internationalized small firms in Goa. However, the growth rate of the market is negatively significant in the correlation analysis at 0.01 levels. This variable is a strong explanation of the variance in the models. The higher growth rate of the domestic market leads to the availability of more domestic market opportunities and lower foreign sales.

This study also hypothesized that a limited domestic market would drive the firms to internationalize. The available domestic markets were measured with the market growth rate, the level of competition, and economic development in the domestic markets. The level of regulation is not significant in the correlation and regression models. It is likely that the firms are unaware of the market structure or they are too small in proportion to the market which has a significant impact on foreign sales.

The effect of export information gathering, planning, and controlling is positively and significantly correlated with greater foreign involvement. In addition, the international planning variable entered the regression equation and explains most of the variance. Overall, this variable is related to the export success for small firms. This study shows that the ability to be an exporter is related to the business size, intensity of R&D, host country factors of domestic markets, and planning for exports pursued by the Goan SMEs. The conclusion is that, for SMEs, inter-

nal and external factors seem to be related to the level of international sales. The variables found to be related to international large firms are also related to our study

sample of small and medium Goan manufacturing firms with a global mindset. ✓

REFERENCES

- Aaby, N E and Slater, S E (1989). "Management Influence on Export Performance: A Review of the Empirical Literature," *International Marketing Review*, 6(4), 7-26.
- Abdel-Malek, T (1978). "Export Marketing Orientation in Small Firms," *American Journal of Small Business*, 3(1), 25-34.
- Agarwal, S and Ramaswami, S (1992). "Choice of Foreign Market Entry Mode: Impact of Ownership, Location And Internalization Factors," *Journal of International Business Studies*, 23(1), 1-27.
- Aharoni, Y (1966). *The Foreign Investment Decision Process*, Boston, MA: Harvard Graduate School of Business Administration.
- Anderson, E and Gatignon, H (1986). "Modes of Foreign Entry: A Transaction Cost Analysis and Propositions," *Journal of International Business Studies*, 17(3), 1-26.
- Armstrong, J S and Overton, T S (1977). "Estimating Non-Response Bias in Mail Surveys," *Journal of Marketing Research*, 14(3), 396-402.
- Bell, J (1996). "The Internationalization of Small Computer Software Firms – A Further Challenge to 'Stage' Theories," *European Journal of Marketing*, 29(8), 60-75.
- Bilkey, W J and Tesar, G (1977). "The Export Behaviour of Smaller-Sized Wisconsin Manufacturing Firms," *Journal of International Business Studies*, 8(1), 93-8.
- Bonaccorsi, A (1992). "On the Relationship between Firm Size and Export Intensity," *Journal of International Business Studies*, 23(4), 605-636.
- Buckley, P (1990). "Problems and Development in the Core Theory of International Business," *Journal of International Business Studies*, 21(4), 657-665.
- Buckley, P (1993). "Contemporary Theories of International Direct Investment," *Revue Economique*, 44(4), 736-52.
- Buckley, P and Casson, M (1976). *The Future of the Multinational Enterprises*, New York, NY: Holmes and Meirer.
- Calof, J L and Beamish, P W (1995). "Adapting to Foreign Markets: Explaining Internationalization," *International Business Review*, 4(2), 115-131.
- Calof, J L and Vivers, V (1995). "Internationalization Behavior of Small and Medium-Sized South African Enterprises," *Journal of Small Business Management*, 33(4), 71-79.
- Cavusgil, S T (1984). "Organizational Characteristics Associated with Export Activity," *Journal of Management Studies*, 21(1), 3-22.
- Davidson, W H and McFetridge, D G (1985). "International Technology Transactions and the Theory of the Firm," *Journal of Industrial Economics*, 32(3), 253-264.
- Erramilli, M K and Rao, C P (1990). "Choice of Foreign Market Entry Modes by Service Firms: Role of Market Knowledge," *Management International Review*, 30(2), 135-150.
- Fajnzylber, Pablo and Fernandes, Ana M (2005). *International Economic Activities and Skilled Labor Demand: Evidence from Brazil and China*, World Bank Policy Research Working Paper 3426.
- Freeman, S; Edwards, R and Schroder, B (2006). "How Smaller Born-Global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization," *Journal of International Marketing*, 14(3), 33-63.
- Gatignon, Hubert and Anderson, Erin (1988). "The Multinational Corporation's Degree of Control over Foreign Subsidiaries: An Empirical Test of a Transaction Cost Explanation," *Journal of Law, Economics, and Organization*, 4(2), 305-336.
- Gomes-Casseres, B (1989). "Ownership Structures of Foreign Subsidiaries: Theory and Evidence," *Journal of Economic Behaviour and Organisation*, 11, 1-25.
- Hair, J F J; Anderson, R E; Tatham, R L and Black, W C (1998). "Multivariate Data Analysis with Readings," Fifth Edition, New York, NY: Macmillan Publishing Company.
- IBEF (India Brand Equity Foundation) Goa website: www.ibef.org/states/goa.aspx
- Johanson, J and Vahlne, J E (1977). "The Internationalization Process of the Firm: A Model of Knowledge Development and Increasing Foreign Market Commitment," *Journal of International Business*, 8(1), 23-32.
- Johanson, J and Vahlne, J E (1990). "The Mechanism of Internationalization," *International Marketing Review*, 7(4), 11-24.
- Johanson, J and Wiedersheim-Paul, F (1975). "The Internationalization of the Firm-four Swedish Cases," *Journal of Management Studies*, 12(3), 305-322.
- Kim, W C and Hwang, P (1992). "Global Strategy and Multinational Entry Mode Choice," *Journal of International Business Studies*, 23(1), 29-54.
- Kobrin, Stephen J (1987). "Trends in Ownerships of American Manufacturing Subsidiaries in Developing Countries: An Inter-Industry Analysis," *Management International Review*, Special Issue, 73-84.
- Lee, C and Beamish, P W (1995). "The Characteristics and Performance of Korean Joint Ventures in LDC's," *Journal of International Business Studies*, 26(3), 637-654.
- Madhok, Anoop (1998). "The Nature of Multinational Firm Boundaries: Transaction Costs, Firm Capabilities and Foreign Market Entry Mode," *International Business Review*, 7(3), 259-290.
- Madsen, T K (1989). "Successful Export Marketing Management: Some Empirical Evidence," *International Marketing Review*, 6(4), 41-57.

- Mockaitis, A I, Vaiginiene, E and Giedraitis, V (2005). "The Internationalization Efforts of Lithuanian Manufacturing Firms: Strategy or Luck?" *Research in International Business and Finance Journal*, 20(1), 111-126.
- Moen, Ø and Servais, P (2002). "Born Global or Gradual Global? Examining the Export Behaviour of Small and Medium-sized Enterprises," *Journal of International Marketing*, 10(3), 49-72.
- Moini, A H (1995). "An Inquiry into Successful Exporting: Expanding the Coordination-Configuration Framework," *Journal of Small Business Management*, 33(3), 9-25.
- Mueller, C B and Naffziger, D W (1999). "Strategic Planning in Small Firms: Activity and Process Reality," *Journal of Small Business Strategy*, 10(1), 78-85.
- Nunally, J and Bernstein, L H (1994). *Psychometric Theory*, Third Edition, NY: McGraw-Hill.
- Oviatt, B M and McDougall, P P (1995). "Global Start-ups: Entrepreneurs on a Worldwide Stage," *Academy of Management Executive*, 9(2), 30-43.
- Reid, S D (1983). "Firm Internationalization, Transaction Costs and Strategic Choice," *International Marketing Review*, 1(2), 45-55.
- Sullivan, D (1994). "Measuring the Degree of Internalization of a Firm," *Journal of International Business Studies*, 25(2), 325-342.
- Svante, A (2004). "International Activities in Small Firms: Examining Factors Influencing the Internationalization and Export Growth of Small Firms," *Canadian Journal of Administrative Sciences*, 21(1), 22-34.
- Tesar, G (1977). "Identification of Planning, Attitudinal, and Operational Differences among Types of Exporter," *American Journal of Small Business*, 11(2), 16-21.
- Vernon, R (1966). "International Investment and International Trade in the Product Cycle," *Quarterly Journal of Economics*, 80(2), 190-207.
- Walters, P G P and Sammie, S (1990). "A Model for Assessing Performance in Small US Firms," *Entrepreneurship Theory & Practice*, 15(2), 33-50.
- Whitelock, J (2002). "Theories of Internationalization and their Impact on Market Entry," *International Marketing Review*, 19(4), 342-347.
- Wolf, B M (1977). "Industrial Diversification and Internalization: Some Empirical Evidence," *Journal of Industrial Economics*, 26(2), 177-191.
- Yang-Ming, Chang (1990). "Market Power and Output Stability under Demand Uncertainty," *Atlantic Economic Journal*, 18(2), 94.
- Yip, G (1996). "Toward a New Global Strategy," *Chief Executive Journal*, 110, 66-67.

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