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What Decides The Pace? : Internationalization Process of Pump & Motor Manufacturers in Coimbatore, South India

Dr. G. Jayanthi[1]
[1]*Head, Department of Management Sciences (UG),*
Sri Ramakrishna College of Arts & Science, Coimbatore -641006 South India
Corresponding Author: Dr. G. Jayanthi

Abstract: *Internationalization process of a company is always a planned strategy. It involves more resource commitment, control and operational expectations. On the path to internationalization, the entire firm's capacity is at discussion again and again: infrastructural facilities for production, setting up of own R&D units, operational skills, management's involvement etc need to be committed. In other words, how fast is the pace of internationalization of firm, will reveal the level of involvement and commitment toward international operations. The objective of this study is to describe the process of internationalization of SMEs and to explore / explain why some firms go for a faster pace of internationalization and some follow a step by step gradual approach. The study has focused on selecting 143 engineering and manufacturing companies and further went in depth to analyze its characteristics. The difference in speediness happens among firms because, the increasing evidences show that small size companies operate in international markets with less experience and some medium and high value adding manufacturing companies operate with more resources and are capable of sustainability through product scope, financial commitments and resourceful counterparts. The aim of this article is to identify what decides the pace of internationalization among these firms and to find which variables play a prominent role in deciding the pace. To further enhance our understanding of this phenomenon and to test it through statistical tools, simple and multiple regression, chi square and pearson's correlations are used from the SPSS package. Proactiveness, competitor's responses, differences among exporting firms, and firm characteristics/ demographic variables are chosen to find the key dimension of speediness/ pace of internationalization of the select sample.*
Key words*: Internationalization, Pace, Proactiveness , Speediness.*

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I. Introduction

Globalization, which has opened the doors of India to multinationals, coupled with growing concerns of pollution control, water and waste –water treatment, and demand for energy –efficient systems is changing the scenario of the Industry. Pump manufactures in India continuously need to improve to enhance productivity, quality and service to customer. Good business planning therefore must include the engineering expertise that has made such business possible in the past and will without doubt continue to do so in the future. The Indian pumps and motor industry is in the order of Rs.3500 crores which makes it to be about 2.5 % of world market. Indian Pumps & motors are now being exported to more than 70 countries both developed and developing countries. This can be expected to happen increasingly and across many more countries around the world through proper interventions.Coimbatore, a city of south India is holding a major market share of 40% of the Indian pump and motor industry. The city caters the domestic market by its commitment, new technology, variety of its product and technology crafted by its own technocrats. The founders of these firms are experienced in innovating and meeting the product specifications of host country markets. Some of the prominent firms include, Mahendra pumps, Texmo, Aqua, sharp, and some joint ventures and foreign subsidiaries are operating from Coimbatore and supplying their pumps and motors to various parts of the world. These firms follow a slow to medium pace of internationalization. i.e they have taken 5 years to 20 years for internationalizing their enterprises from the day of founding to the day of their first foreign assignment. This article will explain the pace followed by these cluster and further discuss about the reasons of slowness in internationalizing.

Speed indicates how many foreign expansions of firm undertakes in a certain period of time. Therefore to measure the speed, the average number of foreign subsidiaries per year was computed. Therefore the number of foreign subsidiaries divided by the number of years since the firm's first expansion.A large number of (average) expansions per year indicates a fast paced internationalization

process. Alternatively speed can be measured through the variables " number of years since the firm's first foreign expansion. i.e how many years it took the firm to reach its current international position.

II. Literature review : Foreign Expansion

Harry G & Rian (2007) argued that companies may enter foreign environments either incrementally as suggested by established internationalization theories or by taking larger steps that may result in lower initial performance but through learning and experience lead to increased performance in future expansions. They also found that expansion steps may be too large, thereby limiting the exploration of foreign environments. Their study suggested that sequential internationalization strategies do still matter and companies have to balance exploitation of resources and exploration of foreign market opportunities in the internationalization process. Entrepreneurial interpretation is a factor in determining the pace with which a firm internationalizes. Other key implications include the importance of product imitability (characteristics) in assessing the extent of a firm's international operations, the significance of geographical scope and psychic distance in the assessment of prospective international markets. Entry mode choice is influenced by the prevailing trends established in each firm and the need to maximize its internal sources. (Murray Taylor, Robert Jack 2013). Many potential benefits of foreign expansion have been identified in the literature yet empirical studies support that firms with international activities perform better than domestic firms. Freek Vermulen & Harry argued that how much a firm benefits from having foreign subsidiaries depends on its speed of internationalization. Further they argued that a firm's capacity to absorb expansion is subject to constraints: some expansion patterns increase profitability less than others, owing to time compression. They hypothesized the speed of internationalization, the spread of geographical scope and product markets entered and the irregularity of the expansion pattern negatively moderate the firm's profitability resulting from foreign expansion.

Jose casillas & Francisco J Acedo (2012), studied and left a research gap of finding the role of speed in the internationalization process. The dimension of speed has rarely been the main focus of research efforts since entry mode and choice of markets were only concentrated. The emergence of the study of international entrepreneurship has enhanced the role of speed, although this has usually been measured in terms of time lag between a firm's foundation and its initial international action. This was not defined explained the speed of the process. They reviewed the concept of speed from an internationalization perspective, described the multi dimensional nature of the concept and time scales that take place during internationalizing processes.

Crick & Jones (2000) found that several firms were set up by managers with experience, operating in international markets from previous firms in which they were employed. Thus, they have got experience in dealing with the complexities of international operations, they have acquired an appreciation of the risks and resource implications, and last but not least, they have developed a network of customers and contacts on which they can build on after setting up their own firms. Whatever reason, increasing evidence shows that in spite of small size and inexperience in international transactions, high value-adding manufacturing firms are capable of outperforming their larger, more resourceful counterparts in foreign markets.

Jose c Casillas Ana M Moreno-Menendez(2011) have found by analyzing internationalization as a dynamic process and explained the speed of international operations in terms of learning acquired in the course of past international activities. They considered the speed of the internationalization process depends on the type of experiential learning that results from decisions implicit in the internationalization process i.e., choice of location and modes of operation. according to him firms develop two types of learning activities viz., diversity and accumulated international activities. The results of their longitudinal study suggest that suggestthat diversity of international activities promotes long-term learning by exposing the firm to richer experiences, although such learning only takes place over time. Depth of international activities may accelerate the internationalization process in the short term, but it eventually restrains its potential for development in the long term.

Pace of internationalization

According to Siv Marina Carlson, the pace of internationalization was measured as how many markets (regions) an SME is entering in a certain time period and also to which type of regions the firm is entering and in what order (close or far away from home market in terms of psychic distance). In addition he measured how fast, after founding, the SME reached an export rate of say 25%, 50%, 75% and 100%. For the current research, the pace was measured through finding the time gap between founding of the firm and its first foreign assignment.

III. Research methodology

The hypotheses were tested on collected data of 143 exporting firms that expanded their business abroad over a period of 5-25 years from founding. the research was developed to measure the speed of internationalization (pace), the dispersion of the internationalization process across different geographic and product markets (Scope), and the regularity of the expansion pattern(rhythm) and tested whether these variables moderate the relationship between foreign market activities and firm performance.

Sample Selection :The firms involved in exporting pumps and motors formed the sample of the study. The chosen firms have exported to at least one country. Simple random sampling method was adopted to finalize the expected sample size of 143 out of 272 listed companies. The criteria for sample selection includes the firm fit into SME definition and those firms are already into exports. Krejice Morgan's table was used to finalize the sample. However due to administrative reasons, few firms were eliminated from the analysis. The sample selection criteria is as follows:

Sample Size = χ^2 N P (1-P) / d^2 (N-1)+ χ^2 P (1-P)

Chi square being 3.841 at 0.05 level of confidence at 1 degree of freedom

N= Population Size (272), P= Population (assumed to be 0.50), d = degree of accuracy expressed which is 0.05 (95 % confidence level), **The sample size arrived through the calculation is 160**

Collection of Data : Both primary and secondary data were used to analyse the industry structure. As for collecting the primary data, a questionnaire was used and in depth interviews, mail surveys are the techniques used.

Statistical tools applied **:** Non- Para metric and multivariate analysis were applied in analyzing the data**.** Chi square test, Pearson correlation with finding the effect size andSimple regression and multiple regression analysis are performed to know the relationship and the impact of studying the speediness of internationalization of a firm.

IV. Objectives of the study

1. To study the speediness of internationalization among the select sample.
2. To find the impact of speediness and proactiveness of the entrepreneurs.
3. To analyse and to find the impact of the nature of the exporting firms and speediness
4. To find the correlates deciding the pace of internationalization of the select sample.

V. Hypotheses for the study

H_1 : Speediness of internationalization is associated with proactiveness of the entrepreneur.

H_2 :The pace of internationalization is dependant on the nature of exporting firms.

H_3: There is no significant relationship between speediness and differences among exporting firms.

H_4 There is no statistical relationship between demographic variables and the speediness of internationalization.

VI. APPLICABILITY OF UPPSALA THEORY VARIABLES

The applicability and its predictive validity of the internationalization theories has been tested with appropriate statistical tools, on identifying the prominent variables in this theory, applied among the sample firms. One of the main variable in assessing the stage model is to know the speediness of internationalization. The selected firms have adopted a medium speed of internationalization. According to previous literature, it is adopted that speediness is the time gap between the foundation of the firm and the first foreign assignment the firm has accepted.

6.1 Speediness of Internationalization in years

The percentage analysis of the speediness of internationalization in years is given in table 4.3.7

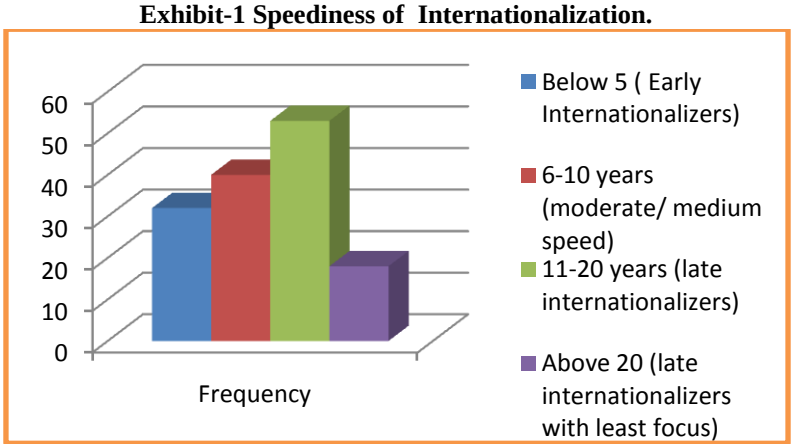
Table. 6.1Speediness of Internationalization in years

S.No	Speed of Internationalization in years	Frequency	Percent
1	Below 5 (Early Internationalizers)	32	22.4
2	6-10 years (moderate/ medium speed)	40	28
3	11-20 years (late internationalizers)	53	37.0
4	Above 20 (late internationalizers with least focus)	18	12.5
	Total	143	100

(Source Primary data)

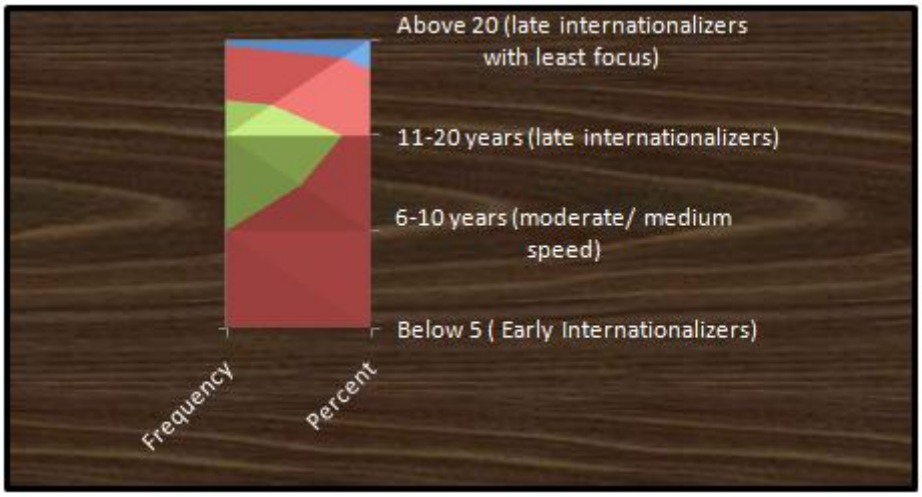
From the above table 6.1, the pace of Internationalization under study are shown in years. The difference in years of inception and the first foreign entry is considered for knowing the pace of internationalization. 53 companies have taken nearly 20 years to make an entry in to international markets. 40 companies have taken 6-10 years for Internationalizing their firms.

Exhibit-1 Speediness of Internationalization.



This shows that the firms' entry into international market are in incremental process. SMEs are sensitive to risks and uncertainties when they stretch abroad. Hence firms have taken careful and incremental steps to reduce the risks and uncertainties in internationalizing. The pace or speediness is based on the firm's characteristics and the resource commitment along with entrepreneur's involvement.

Exhibit-2 Surface plot showing the Speediness



The above surface plot (exhibit-2) indicates that the select firms follow a moderate speed to late internationalizing pace which falls between 6 years to 20 years from the day of founding to start exporting to foreign countries. Thus it posits that the select firms need to explore new opportunities, look for solicited / unsolicited orders by the way of utilizing the modern methods of marketing. Developing clusters and networks, becoming associative members in export bodies, participating in trade exhibitions, awareness on availing institutional benefits also would speed up the process.

6.2Level of Speediness of Internationalization

The period of time taken by the firms for entry into international markets is one of the prominent variable of U model. The respondents have construed their internationalization pace among three levels i.e. slow, medium and rapid high.

Table 6.2Internationalization Pace (level of speediness)

S.No	Describing the pace of Internationalization	Frequency	Percent
1	Slow(above 10 years)	52	36.4
2	Medium(6-10 years)	85	59.4
3	Rapid high (0-5 years)	6	4.2
	Total	143	100

(Source Primary data)

From the above table 6.2 , it is deduced that 36.4 % (i.e 52) of the firms' speediness level was at a very slow pace, 59.4 % (85 firms) have taken more than the normal pace i.e. medium speed and only 6 firms have taken lesser time referred as rapid high speed in internationalizing process.

6.3 Strategies of Internationalization

The internationalization strategy adopted by the firms are shown in below table 6.3

Table 6.3The Strategies of Internationalization

S.No	Strategies of internationalization	Frequency	Percent
1	Step by step process (slow and cautious)	38	26.6
2	Through network relationship	12	8.4
3	Through international Entrepreneurship	8	5.6
4	A combination of all the three	79	55.2
5	International from the beginning (INV,subsidiary)	6	4.2
	Total	143	100.0

(Source Primary data)

From the above table 6.3, it is visualized that 38 (26.6%) firms have followed a step by step or a gradual process of Internationalizing. 79 (55.2 %) firms have chosen all the three strategies of internationalization i.e a combination of building network and Entrepreneurial motivation along with the stage process of internationalization.

6.4 Differences of Exporting firms

The differences of exporting firms based on the time of internationalization are shown in the below table 6.4

Table 6.4. Differences of exporting firms

S.No	Nature of exporting Firms	Frequency	Percent
1	Early starters(internationalizing between 0-5 years)	6	10
2	Late starters (taking more than 10 years for international entry from starting)	52	36
3	Lonely International (having the capability to internationalize before their competitors)	16	2
4	Average pace internationalizers(International among others)	69	52
	Total	143	100

(Source Primary data)

From the above table 6.4, it posits that the nature of firms in internationalizing is based on four classifications. Early starters are 6 firms with a rapid high speed of internationalization. 69 firms internationalize at a moderate pace , gaining knowledge about the market, Country, competitors, Institution etc. and internationalized in a fully competitive environment, 16 firms are lonely internationalizers having the capability to withstand its competitors due to its uniqueness and other advantages and 52 firms belong to the category of late starters taking long duration to internationalize.

From the empirical evidence, there are 6 firms gone for early internationalizing. International experience is the important mechanism for early internationalizes. Experiential learning is the main drive / motive for internationalization for these firms. Previous international experience and proactiveness of the entrepreneur are factors conducive for early internationalizing. Joint Venturing with foreign firms, Born globals are the examples of early internationalizes. Acquiring international knowledge, market expansion, profit seeking are the main outcomes of early internationalizing.

Table 6.4(a). Early starter Vs Late starters

Early starter	**Late starter**
High degree of Internationalization	Low degree of Internationalization
Entrepreneur's previous international experience, proactiveness, experiential knowledge as the main mechanisms.	Percentage of management team worked abroad, having foreign directors, employees with international experience etc.
High risk involved	Risk and uncertainty are limited.
Increased Market commitment	Long term analysis and study on foreign market
Operating with previous international experience and the speediness is medium to high.	Experience gained through local markets is slow and incremental process
Hasty decision in internationalizing	The longevity in operating domestic market will affect the firm in gaining international knowledge.

(Source: for the research)

From the above table, 6.4(a) the drivers that help the firm in early internationalizing are exhibited.

6.5 Number of Countries exported.

Table.6.5 Number of countries exported by firms

S.No	**Number of countries exported by firms**	**Frequency**	**Percent**
1	Below 2	0	0
2	2-5	13	9.1
3	5-10	75	52.4
4	Above 10	55	38.5
	Total	143	100.0

(Source Primary data)

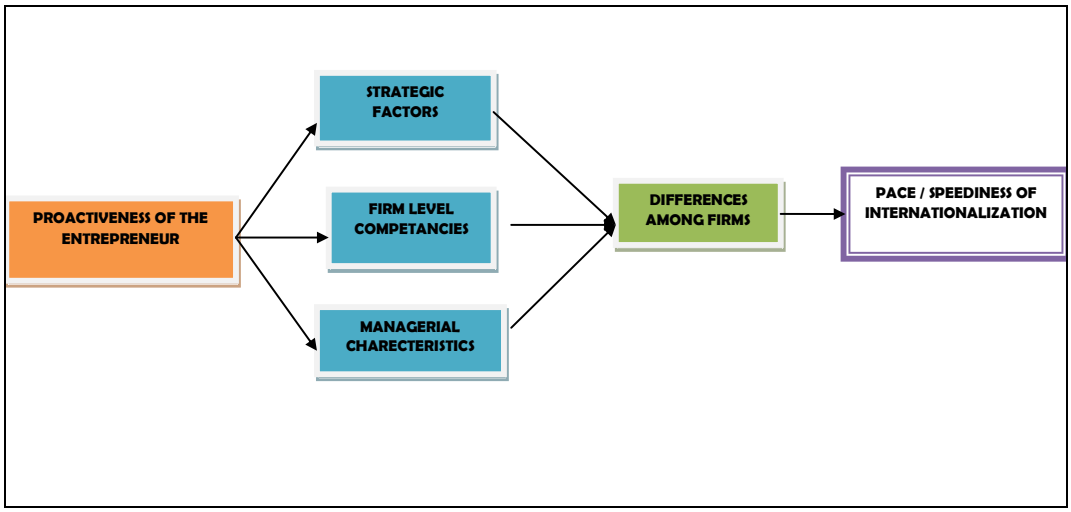
From the above table 6.5, the number of countries exported by the firms are visualized. 75 companies are exporting to more than 5- 10 countries (52.4%). 13 firms are having 2-5 foreign customers and 55 (i.e 38.5 %) firms are exporting to more than 10 countries.

Thus it is concluded that the majority of 52.4% of the exporters have 5-10 countries of their products being exported. This also shows the market expansion and the pace of internationalization based on number of countries exported. Firms with above 10 countries show the commitment toward foreign activities, Market expansion and the tendency of seeking higher profits.

VII. Empirical Views

For finding the empirical results on knowing the relationship with variables and the knowing the impact and effects of internationalization will reveal the pace and its benefits on the path of internationalization.

Conceptual Model of Relationship of Internationalization of select firms



7.1 Pace of internationalization and nature of firms

H_1 : There is no significant relationship between the pace of Internationalization and nature of firms.

Table. 7.1Correlating pace of Internationalization and nature of Firms

		Pace of Internationalization	Nature of firms
Pace of Internationalization	Pearson Correlation	1	.422(**)
	Sig. (2-tailed)		.000
Nature of firms	Pearson Correlation	.422(**)	1
	Sig. (2-tailed)	.000	

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

From the above table 7.1, the correlation coefficient between pace of Internationalization and nature of Firm is 0.422 which shows a positive relationship of 42% among these two variables and it is significant at 1 % level since the p value is 0.00. Hence there is a positive relationship between pace of Internationalization and nature of the company. Recalling from the correlation review table, r can be interpreted as an effect size using cohen's d guidelines. In this case, the groups are compared, (no need of calculating Cohen's *d) hence* effect size is simply the *r value*. Hence**the r value is 0.422 and the effect size is also 0.422 and p<0.05. According to the standard interpretation, cohen's effect size value (d=0.422)shows a moderate practical significance.**Effect sizes can also be interpreted in terms of the percent of non overlap **of** the treated group's scores with those of the untreated group, An ES of 0.4 indicates a non overlap of 27.4% in the two distributions of pace of internationalization on nature of firms.

Table 7.1.1 Pace of Internationalization and nature of firms

Pace of Internationalization		**Nature of firms**				**Total**	**Chi square**	**df**	**P value**
		Early	late	lonely	Intl.				
1	Below 5 years	6	2	8	16	32	69.923	9	0.000**
2	6-10 years	0	10	4	26	40			
3	11-20 years	0	32	4	17	53			
4	Abve 20 years	0	8	0	10	18			
Total		6	52	16	69	143			

P<0.000 Asymp. Sig.(2-sided)

(Source Primary data)

From the cross tabulation and chi square results, the above table 7.1.1, prompts that there is statistically significant relationship between pace of Internationalization and nature of company in which the chi square result is 69.923 and is significant at 1 % level at 9 degrees of freedom, P value is 0.000. Hence the null hypotheses gets rejected and the result is proved that there exists a relationship between pace of Internationalization and the nature of firms

7.2 Relationship between Speediness of Internationalization & Proactiveness

H_2: There is no significant relationship between speediness of internationalization and proactivieness.

Table 7.2 Relationship of speediness and proactiveness

		Proactiveness	**Speediness**
Pearson Correlation	Proactiveness	1.000	.600**
	Speediness	.600**	1.000
Sig. (1-tailed)	Proactiveness	.	.000
	Speediness	.000	.

(source : Primary data)

From the above table 7.2, the correlation coefficient between pace of Internationalization and nature of Firm is 0.600 which shows a positive relationship of 60% among these two variables and it is significant at 1 % level since the p value is 0.000. Hence there is a positive relationship between pace of Internationalization and proactiveness. Recalling from the correlation review table, r can be interpreted as an effect size using cohen's d guidelines. In this case, the groups are compared, (no need of calculating Cohen's *d) hence* effect size is simply the *r value*. Hence**the r value is 0.600 and the effect size is also 0.600 and p<0.001. According to the standard interpretation, cohen's effect size value (d=0.600)shows a moderate practical significance.**Effect sizes can also be interpreted in terms of the percent of non overlap **of** the treated group's scores with those of the untreated group, An ES of 0.6 indicates a non overlap of 38.2% in the two distributions of pace of internationalization on proactiveness.

7.3 Relationship of Speediness and differences among Exporting firms

H_3: There is no significant relationship between speediness and differences among exporting firms.

Table 7.3 Speediness and differences among Exporting firms

		Speediness	Differences of exporting firms
Pearson Correlation	Speediness	1.000	.336
	Differences of exporting firms	.336	1.000
Sig. (1-tailed)	Speediness	.	.000***
	Differences of exporting firms	.000***	.

(*** p<0.000)(source : Primary data)

From the above table 7.3, the correlation coefficient between pace of Internationalization and nature of Firm is 0.336 which shows a positive relationship of 33% among these two variables and it is significant at 1 % level since the p value is 0.00. Hence there is a positive relationship between pace of Internationalization and nature of the company. Recalling from the correlation review table, r can be interpreted as an effect size using cohen's d guidelines. In this case, the groups are compared, (no need of calculating Cohen's *d) hence* effect size is simply the *r value*. Hence**the r value is 0.422 and the effect size is also 0.336 and p<0.001. According to the standard interpretation, cohen's effect size value (d=0.336)shows a small practical significance.**Effect sizes can also be interpreted in terms of the percent of non overlap **of** the treated group's scores with those of the untreated group, An ES of 0.3 indicates a (62 percentile standing) and non overlap of 21.3% in the two distributions of speediness and differences in exporting firms.

Multivariate analysis of finding the Pace of Internationalization

7.4 Finding the Impact of variables affecting the speediness

7.4.1 Model- 1 Regression Impact of Proactiveness and speediness of Internationalization.

Table 7.4.1 Simple Regression Results

Multiple R value	**R^2 value**	**F value**	**P value**
0.600	0.361	79.518	0.000***

From the above table7.4.1, R value is 0.600, measures the degree of relationship between the actual values and the predicted values of the Adjustment. Because the predicted values are obtained as a linear combination of proactiveness ($\mathbf{X_1}$) and speediness of internationalization.

The Coefficient of DeterminationR-square measures the goodness-of-fit of the estimated Sample Regression Plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. Thus, the value of **R square is** 0.600 ie., 60% of the variation in adjustment is explained by

the estimated SRP that uses **Proactiveness and speediness of Internationalization** as the independent variables and R square value is significant at 1 % level

Table 7.4.1.1 Impact of Proactiveness and speediness of Internationalization.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)Proactiveness	.411	.078		5.239	.000
	X_1 Speediness	.376	.042	.600	8.917	.000

Coefficients (a)

(a.Dependent Variable: Proactiveness, Independent variable :speediness(source : Primary data)

From the above table 7.4.1.1, it is evident that based on the unstandardized co-efficient**,** the simple regression equation can be formulated. The simple regression equation is,

$Y = 0.411 + 0.376X_1$

Here the coefficient of $\mathbf{X_1}$ is 0.376 represents the partial effect of speediness on proactiveness as constant. The estimated positive sign implies that such effect is positive and the adjustment score would increase by 0.0376 for every unit increase in speediness will increase the proactiveness and this coefficient value is significant at 1% level.

7.4..2 Model- II Impact of speediness of Internationalization on Proactive responses of Entrepreneurs toward competitive pressures.

Table 7.4.2.1Regression Results

Multiple R value	**R^2 value**	**F value**	**P value**
0.529	0.280	7.505	0.000***

From the above table 7.4.2.1, R value is 0.529, measures the degree of relationship between the actual values and the predicted values of the Adjustment. Because the predicted values are obtained as a linear combination of speediness ($\mathbf{X_1}$) and**Proactive responses of Entrepreneurs toward competitive pressures** ($\mathbf{X_2}$), the coefficient value of 0.529 indicates that the relationship between adjustment and the other independent variables isare quite strong and positive.

The Coefficient of DeterminationR-square measures the goodness-of-fit of the estimated Sample Regression Plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. Thus, the value of **R square is** 0.529 ie., 52% of the variation in adjustment is explained by the estimated SRP that uses **speediness of Internationalization on Proactive responses of Entrepreneurs toward competitive pressures.** as the independent variables and R square value is significant at 1 % level

Table 7.4.2.2Impact of Proactive responses of Entrepreneurs toward competitive pressures.

Model	**Coefficients(a)**	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
2	(Constant)Speediness	1.284	.107		12.033	**.000**
	X1-Response to Competitor's initiativeness	.120	.032	.336	3.797	**.000**
	X_2Response toward introducing new products, technology& administrative techniques.	.050	.047	.109	1.057	.293
	X_3Avoid/ adopt competitive clashes	-.145	.049	-.311	-2.936	**.004**
	X_4Risk taking – A strong tendency toward high risk projects	.053	.045	.116	1.177	.241
	X_5Cautious/ Audacious approach to achieve objectives	.189	.059	.393	3.221	**.002**
	X_6Maximising the possibility of exploiting potential opportunities.	-.055	.019	-.251	-2.937	**.004**
	X_7Very risky play. A false step may bring loss to the company.	.035	.017	.166	2.044	.043

a Dependent Variable: Speediness(source : Primary data)

From the above table 7.4.2.2, based on the unstandardized co-efficient**,** the multiple regression equation can be formulated. The multiple regression equation is,

$Y = 1.284 + 0.120X_1 + 0.050X_2 + (-0.145\ X_3) + 0.053\ X_4 + 0.189X_5 + (-0.55X_6) + 0.35X_7$

The coefficient of the variable (X_1) in Model 2 implies that, on average, speediness increases by responses by competitor's initativeness by 0.336 percent and it is significant at one percent level.
Similarly the coefficient of the variable (X_3) in the above model, avoid/ adopt competitive clashes shows a negative value of -0.311 implies that the pressure on competition reduces, by -0.311 unit of decrease will increase the speediness and it is significant at 5 percent level.

Also, the coefficient of the variable (X_5) in the above model, usage of cautious and audacious approach to achieve the objectives shows a value of 0.393, implies that the approach toward achieving the objective for speediness shows a positive effect, thus every unit of 0.393 towards achieving the objectives for speediness is significant at 5 percent level.

Also, the coefficient of the variable (X_6) in the above model, i.e, Maximizing the possibility of exploiting potential opportunities. shows a value of -0.251, implies the negative effect of when exploiting the opportunities are minimized, there is a chance of speediness will decrease. Thus every unit of -0.251 of maximizing the opportunities will increase the speediness and is significant at 5 percent level.

In order to find an explanation to why some SMEs still follow a more step-by-step approach while other choose the faster and more erratic approach of jumping stages, Madsen, Servais & Rasmussen (1999) argue that the development (globalization) may enable firms to more freely choose their own model of becoming international. International sales both become easier and more difficult in that international markets have become more accessible for most firms – while on the other hand the degree of competition and demands for international competence has increased. In the above findings it is clear that the Reponses toward competition and competitor's pressure has influenced the entrepreneur for expansion of markets.
In other words there is both a "positive" pressure from increased level of globalization and increased accessibility to markets, and a "negative" pressure which is tougher competition, are a necessity for a new company to be present in many markets. The result on the pace of internationalization is the same for both "pressures" - it increases. (Carlson)

7.4.3 Model -III Impact of Speediness on differences among Exporting firms

Table 7.4.3.1Regression Results

Multiple R value	R^2 value	F value	P value
0.336	0.113	17.897	0.000**

From the above table 7.4.3.1, R value is 0.336, measures the degree of relationship between the actual values and the predicted values of the Adjustment. Because the predicted values are obtained as a linear combination of speediness ($\mathbf{X_1}$) and **differences among exporting firms** ($\mathbf{X_2}$), the coefficient value of 0.336 indicates that the relationship between adjustment and the other independent variables are quite strong and positive.

The Coefficient of DeterminationR-square measures the goodness-of-fit of the estimated Sample Regression Plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. Thus, the value of **R square is** 0.336 ie., 33% of the variation in adjustment is explained by the estimated SRP that uses **Speediness on differences among Exporting firms**as the independent variables and R square value is significant at 1 % level

Table 7.4.3.2Impact of Differences among Exporting firms

Model	**Coefficients(a)**	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
3	(Constant)Speediness	1.195	.141		8.464	.000
	Differences among exporting firms	.187	.044	.336	4.231	.000

a Dependent Variable: Speediness (source : Primary data)

From the above table 7.4.3.2, based on the unstandardized co-efficient**,** the simple regression equation can be formulated. The simple regression equation is,

$Y = 1.195 + 0.187\ X_1$

Here the coefficient of $\mathbf{X_1}$ is 0.187 represents the partial effect of speediness as constant. The estimated positive sign implies that such effect is positive and the adjustment score would increase by 0.187 for every unit increase in differences of exporting firms and this coefficient value is significant at 1% level.

7.5 Finding the relationship of firm characteristics and speediness.

Table 7.5.1Correlations

		Mean	SD	1	2	3	4	5	6
1.Share of foreign sales	Pearson Correlation	1.69	0.817	1					
	Sig. (2-tailed)								
2.Reasons- market expansion	Pearson Correlation	325.48	520.55	.189(*)	1				
	Sig. (2-tailed)			.024					
3.Speed	Pearson Correlation	1.76	0.619	.668(**)	.210(*)	1			
	Sig. (2-tailed)			.000	.012				
4.Regularity	Pearson Correlation	2.03	0.671	.427(**)	.239(**)	.322(**)	1		
	Sig. (2-tailed)			.000	.004	.000			
5.Age of the firm	Pearson Correlation	2.77	0.540	.010	.009	-.065	.018	1	
	Sig. (2-tailed)			.907	.911	.442	.831		
6.Size of the business	Pearson Correlation	2.26	0.878	-.013	.069	.027	.107	.275(**)	1
	Sig. (2-tailed)			.875	.411	.752	.202	.001	

* Correlation is significant at the 0.05 level (2-tailed). (source : Primary data)

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

From the correlation results in table no. 7.5.1, it corroborates that foreign sales is related with Market expansion (189*) speediness (0.668**), Regularity in exports (0.427**) at 1 percent level of significance and the p value is 0.000. Similarly, Regularity in exports is related with speediness(0.322**) at 1 percent level of significance i.e p <0.000. Age and size of the business is also showing a positive relationship (0.275**) at 1% level of significance and p<0.001.

7.5.(a)Calculation of Effect Sizes :

The standard interpretation offered by Cohen (1988) is:0.8 = large (8/10 of a standard deviation unit)0.5 = moderate (1/2 of a standard deviation)0.2 = small (1/5 of a standard deviation)

*Recall from the Correlation review r can be interpreted as an effect size using the same guidelines and for correlation the effect size is simply the *r value*

Table 7.5.2

Calculation of Effect Sizes for the *r* value

S.no	Correlated Variables	R value / effect size (d)	Percentile standing	Percentile overlap*	Interpretation
1	Market expansion & share of foreign sales	0.189	54	7.7 %	small
2	Speediness and share of foreign sales	0.668	73	38.2%	medium
3	Speediness and market expansion	0.210	58	14.7%	small
4	Regularity and share of foreign sales	0.427	66	27.4%	medium
5	Regularity and market expansion	0.239	58	14.7%	small
6	Regularity and speediness	0.322	62	21.3%	small
7	Size of the business and age of the firm	0.275	58	14.7%	small

(*An ES of 0.6 indicates percentile overlaps of 38.2 % describes the percent of non overlap in the two distributions.) refer Cohen (1988)p.25

The results from the above table no.7.5.2 proves that the firms can increase their profitability through international expansion. However consistent with the traditional theory, it was found that firms in our sample has realized this potential if they have selected a growth strategy which was balanced with speediness, regularity of exports and the market expansion strategies. Thus the results show that speediness is dependant on the foreign sales, regularity in exporting and the size of the firm.

7.5.3 Demographic variables and the pace of internationalization

H_4 : There is no statistical relationship between demographic variables and the speediness of internationalization.

Table 7.5.3 Demographic factors and speediness

S.no	Variables	Chi square value	df	Assump. Sig(2 sided)	Significance
1	Age group	10.395	3	0.109	NS
2	Gender	5.267	3	0.153	NS
3	Educational qualification	10.648	3	0.014	P<0.05
4	Designation of the respondent	25.777	9	0.002	P<0.05
5	Experience	25.533	6	0.000	P=0.000
6	Age of the business	19.254	6	0.004	P<0.05

(source : Primary data)

From the demographic variables observed from the above table 7.5.3 , it is noted that educational qualification (0.014), designation of the respondents(0.002), experience of the respondent(0.000) and age of the firm(0.004) shows a positive statistical relationship with speediness of internationalization. Since age of the respondent and gender (male/ female) doesn't show any relationship with speediness. The level of experience and educational qualification makes the speed faster at the same time, designation of the respondent also makes the pace faster through their contacts, international relationships, decision making characteristics etc are very important aspect in the study of dimension of speed. Although age of the business also show a significant relationship because, the previous experience of the firm, increased resources, business knowledge, domestic trade related knowledge, networks of the founder and several other firm related advantages will speed up the process.

Hence the null hypotheses is accepted for age group and gender, and it is rejected for the other variables viz, educational qualification, designation, age of the firm and experience of the respondents.

VIII. Findings & Implications

In model – 1, the coefficient of the variable speediness implies that ($\mathbf{X_1}$) on average , every additional unit (0.376) of speediness increases, the proactive nature of the entrepreneur also increases and this coefficient value is significant at 1% level.

In model-2, The coefficient of the variable (X_1) in Model 2 implies that, on average, speediness increases by responses by competitor's initativeness by 0.336 percent and it is significant at one percent level.

Likewise in model -3, the coefficient of ($\mathbf{X_1}$) is 0.187 represents the partial effect of speediness as constant. The estimated positive sign implies that such effect is positive and the adjustment score would increase by 0.187 for every unit increase in differences of exporting firms and this coefficient value is significant at 1% level.

From the results, it is clear that the impact of proactiveness is more on speediness. While considering the vice versa, proactiveness of an entrepreneur/ management's decision will speed up the pace of internationalization.(regression effect multiple r value 0.600) Proactiveness triggers the speed of internationalization.

From the demographic variables observed from the above table 7.5.3 , it is noted that educational qualification (0.014), designation of the respondents(0.002), experience of the respondent(0.000) and age of the firm(0.004) shows a positive statistical relationship with speediness of internationalization.

Hence there are five factors, which presses forward for increased speed viz,

1. Proactiveness of the entrepreneur.
2. Regularity in exports (regular & continous)
3. Responding to competitive pressures (positive/negative)
4. Demographic factors (experience of the work force)
5. Profitability through rapid internationalization

Therefore the expected relationship of variables could be derived from the observations of table no. 7.5.2 & 7.5.3

Table 8.1

Variables, Measures and expected sign of influence on the Pace of Internationalization

Variables	**Measures**	**Expected Sign**
Dependant Variable		
Speediness	Competitive pressures/ level of speed	+
Speediness	Share of foreign sales / total sales Volume	+
Speediness	Entrepreneurial motivation	+

Speediness	Level of Barriers	_
Proactiveness	Cautious / audacious approaches	+
Independent variables		
Internationalization	Export sales/ total sales	+
Initiation to competition	Number of countries exported	+
Firm size	Number of employees	_
Age of the Business	International experience in years	+
Gender & Age group	Demographic factors	_

(source: results from regression & Correlation)

a. Implications

Speediness acts as an independent and dependant variable to prove the pace of internationalization. Since proactiveness depends on the speed of market entry and speediness depends on the proactive approach of the management. Because, the higher the pace, the demand of more proactivity from the owner/ founder is expected.

For example at the initial stage of starting the firm (i.e within 5 years) if the firm goes for foreign market entry into 5-10 countries would increase their return on assets, achieve more profits from foreign sales. Subsequently this requires more commitment and proactiveness.

Obviously slow speed will leave the firm with very few foreign markets, and no plan of setting subsidiaries outside the country results in less profit, no international focus and minimum acquisition of knowledge. *(market, business, institutional etc).* Plotting the profitability of these firms against time, showing that the company expanding at the speed level of 5-10 countries in 5 years of time is better off than the firm expanding at the speed of 5-10 countries in 10 or more years of time. And also profitability is directly linked with the speed of internationalization. The firms which are aspiring for more profits have to increase the pace of internationalization.

b. What decides the pace ?

From the empirical evidence the following are proved:

- More experiential knowledge about international market will increases the pace of internationalization.When the knowledge lacks, the foreign market entry will take more time.
- International experience of the owner / manager and the management's involvement fosters the speed of internationalization.
- The firms intended to employ managers with international experience also makes a faster and successful foreign entry.
- At times bold and audacious approaches of the entrepreneurs towards operating in international markets and responding to competitor's pressure are necessary to quicken the steps in the pace of internationalization.
- Internal competencies such as skilled staff and operating competencies would also makes the pace faster.
- Other macro economic indicators that decides the pace such as, market expansion, firm specific advantages, adaptation of resources, commitment etc will decide the pace of internationalization of firm.
- The pace is measured through how many markets a firm can enter in a certain time period.
- As discussed earlier, a firm desiring of more profits and quicker growth will faster the pace of internationalization process.
- Entrepreneurial intention with growth prospects also will increase the speed of internationalization process.

Why is the pace slow among the select sample firms?

Hedlund & Kverneland (1985) also provide evidence of a speeding up of the internationalization process and posit that: "the establishment and growth strategies on foreign markets are changing towards more direct and rapid entry modes than those implied by theories of gradual and slow internationalization processes".Knight & Cavusgil (1996) believe that the slowness of the process described in traditional

internationalization literature, may be an indication of management's aversion to risk-taking and their inability to acquire relevant knowledge and information. The firms need to identify the reasons of their own and to respond according to their profit expectations. The main cause of exhibiting slow pace in internationalizing will leave the firm less focused and results in lower profits. Some of the internal and external forces that keeps these firms left behind from international identity. The internal reasons for slow pace could be a cautious approach toward uncertainty and losses, less experienced staff/ work force, uninterested firms, not aiming for higher profits and more of domestic view. The external barriers that hinders the exporters are due to high production cost, political instability, policy changes banking regulations and institutional barriers which are making the pace slower. The exporters have to turn the negative forces to positive forces and to exploit the opportunities to continue cross border activities.

IX. Conclusion

From the study of speediness of internationalization, there are so many variables brought under the light of Uppsala theory (stage theory) and several factors that increases and hinder the pace had been discussed. From the analysis it is very clear that speediness and proactiveness are inter dependant factors and the firms need to develop the proactive approach toward internationalization. Barriers of internationalization will hinder only the exporting process and there is no direct statistical relationship with speediness. Hence barriers will have an effect on hindering the process. Firms can try to concentrate on following the regular and continous pattern of exporting by increasing the geographic scope.

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