

Thesis Title: *Exploration of Inward and Outward Internationalization Linkages in Knowledge-intensive Firms in an Emerging Economy*

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ABSTRACT

How do the relatively resource-poor, technologically deficient firms from emerging economies transform themselves, to not only successfully internationalize, but also emerge as multinationals which are globally competitive? Motivated by this question, we explore and find evidence of strong linkages between infusion of knowledge, resources and capabilities from foreign markets and outward expansionary activities and performance of knowledge-intensive firms from an emerging economy viz., India.

Though internationalization includes both inward and outward movements, most research on internationalization is focused on outward aspects, thus ignoring inward aspects or the linkages between inward and outward aspects of internationalization. We believe that these inward-outward linkages are particularly important in the context of emerging economies which were under protectionist policy regime for many decades until they were opened up in the past two decades. One of the central arguments advocating a greater linkage of emerging economies with the global economy has been that the access and use of various inputs from the foreign markets would help the emerging market firms improve their global competitiveness and capture greater share of the global market through outward expansion. To what extent the use of various knowledge and resource inputs from foreign markets has resulted in outward expansionary activities of the emerging market firms, particularly in knowledge-intensive sectors? Do some of the firm characteristics unique to emerging economies such as

affiliation to business groups have any influence on the outward international expansionary activities of firms? Finally, what is the ultimate impact of the outward expansionary activities with or without inward internationalization on the performance of firms? These are the key research questions that we examine in this dissertation not only to fill a major void in extant literature but also to draw important policy and managerial implications.

Building on the theoretical foundations of Resource-based View (RBV) and Knowledge-based View (KBV), we develop a number of hypotheses linking the inward internationalization of technological, financial and managerial resources of emerging economy firms and their outward internationalization of product-markets and further, with firm performance. We test these hypotheses using longitudinal data from a balanced panel of 63 firms from the Indian information technology (IT) and IT enabled services (ITES) industry over a six-year period from 2000-01 through 2005-06. In addition to using data from the secondary database *Prowess*, we carried out the laborious task of culling the data on various measures for internationalization and other independent variables by gathering and coding from the annual financial reports of our sample firms for the last six years. We have estimated all our models using random effects generalized least squares (GLS) panel regression techniques. The panel design used in this study allows us to explicitly control for unobserved effects that vary over time and across firms, minimizing to the extent possible the likelihood of biased parameter estimates. We summarize the key findings of our research below.

- Our core thesis that inward internationalization of resource mix – technological, financial and managerial – is positively related to outward internationalization is strongly supported. The results are found to be consistent across multiple measures of outward internationalization namely, foreign sales intensity, multinationality and export volume.
- Affiliation to a business group showed a strong, statistically significant effect on outward internationalization in all the models. Regarding the sign of the relationship, business group membership is negatively related to foreign sales intensity and export volume, but is found to have a positive effect on multinationality. We infer from these findings that group affiliation generally acts

as an inertial barrier to new exploratory activities such as internationalization. However, once a firm is on the internationalization journey, member firms of a group are in a position to leverage the group's resources to achieve higher multinationality.

- The findings of the study provide reasonable support for the prediction of a dynamic impact of international resources on outward internationalization, with the impact of technological resources declining over time, while the impact of financial and managerial resources increases.
- We find strong evidence of a positive, linear relationship between outward internationalization and firm performance invariably across all models. More importantly, we find that outward internationalization or diversity achieved in conjunction with inward sourcing of international resources has a positive impact on performance across almost all models.

Some major implications of our study are:

- We show that inward-outward internationalization linkages are particularly important in the context of knowledge-intensive firms in emerging economies such as India which were under protectionist policy regime for many decades. The study indicates that knowledge created through inward internationalization activities could be exploited to facilitate a firm's efforts of outward international expansion and superior performance.
- Our study on the internationalization of Indian IT and ITES firms reveals strategies that go against the existing wisdom on emerging economy firms - offensive strategies built on the foundations of accessing international resources and capabilities. Our findings indicate that, despite several constraints, some emerging economy firms may adopt assertive strategies such as sourcing of international resources and overseas acquisitions, taking advantage of increasingly liberalized economies, and may catch up with established MNCs sooner than later.
- As anticipated by Indian policy makers, economic liberalization helped these firms access foreign capital, import technologies, raw materials etc. and become more globally competitive. These findings should serve as a signal for government

policies in various countries, which continue to actively discourage inward activities through tariff and non-tariff barriers while providing economic support to only outward internationalization activities.

We conclude with a discussion of the limitations of the study and several directions for future research.

Key words: Knowledge-intensive firms, emerging economies, internationalization, inward-outward linkages, resource-based view, knowledge-based view.