ABSTRACT

In emerging economies large scale economic reforms, popularly known as economic liberalization, result in a radical discontinuity of the institutional environment. Firms founded *before* and *after* such economic liberalizations experience starkly contrasting founding environments. As argued by organizational imprinting theory, the founding contexts of firms have lasting influence on their strategy, structure, processes and performances. So these two types of firms are expected to be different in their strategic orientations. But precisely in what way are they different? There is hardly any study comparing how different historical experiences of emerging economy firms play a role in their strategic evolution. Addressing this gap, this dissertation explores: *how differences in legacies of institutional contexts experienced by firms in emerging economies, influence evolution of their strategy and performance?*

The dissertation explores two types of institutional contexts. First is the *external institutional environment*, defined by economic, legal, political, socio-cultural and technological institutions which changes radically with economic reforms. The second is the *quasi-external institutional environment* of business groups. Business group, govern their affiliates through norms, culture, formal and informal rules and regulations. They create a meso-institutional environment for their affiliates and which is termed in this dissertation as quasi-institutional environment. The study first explores the direct and the interactive effect of these two types of institutional legacies on *performance evolution*. Then it investigates how technology strategy mediates this relationship. It explores how institutional legacies directly and interactively influence *technological knowledge sourcing trajectory*. Then it explores how different sources of technological knowledge influence the different dimensions of firm performance over an extended period of time, and how the institutional legacies of firms moderate these relationships.

A *dynamic model of imprinting and evolution of organizational routine* is developed in order to analyze the path dependent phenomenon under study. It argues that organizational routines underlying strategic search and decisions are initially imprinted or institutionalized inside organizations when they attempt to *establish fit* with the founding environment. As environment changes they are also modified to *re-establish fit* with the changed environment, resulting in evolution of firms strategy and in turn performance. These legacies also determine technology absorptive capacity and moderate the technology-performance relationship of firms.

The hypotheses developed are tested using a panel data comprising 3026 private sector Indian firms from multiple-industries in manufacturing sector over a period of seven years:

from financial year 2000-01 to 2006-07. The panel data allows the study of the effect of institutional legacy on *evolution* of the technology development strategy and performance of firms, and also the effect of technology development strategy on the different performance dimensions over an *extended period of time*. The latter relationship is examined with strategy variable of current year as well as those lagged up to four years. All models are estimated with random effect generalized least square panel regression.

A descriptive analysis of post liberalization era reveals that aggregate economic contribution of children of reforms in market participation, production, employment and indirect tax grew at a high rate due to increasing number entrepreneurial ventures. Their average firm level growth was higher, but profitability (PAT/Sales) was lower than old generation firms, and especially more so during economic slowdown. It indicates that old generation firms have stronger competitive advantages and longer staying power than children of reforms. In the 1990s children of reforms were few times higher on firm level growth of outsourcing, marketing and technology licensing and moderately higher on growth on import, export, advertisement and R&D, but by the new millennium they lagged behind the old generation firm on most of these.

Further analyses showed that aggregate contribution of business group affiliates and non group firms on market participation, production, employment and indirect tax were more or less equally balanced over the entire period. However, at the firm level business group affiliates have been growing in revenue, value addition and profit at a rate higher than the non group firms. The profitability (PAT/Sales) plots reveal that business group affiliates are slow to adapt in changing environment and perform marginally inferior to independent firms during such situations. However in steady environment after they have adapted they perform significantly better. In the 1990s business group affiliates fared better in growth of outsourcing, import, export, outward foreign investment, advertisement and marketing, technology acquisition, but I the new millennium they were marginally lagging in nearly all. It seems they went though radical strategic reorientations in the 1990s to settle for steady stance and higher profitability in the new millennium.

Results support the core theses that institutional legacies of firms have prominent influence on the evolution of strategy and performance of emerging economy firms. "Old generation firms" (firms founded pre liberalization) lagging market oriented strategies perform inferior to "children of reforms" (founded post liberalization). However over time they improve their relative performance by leveraging their absorptive capacity derived from the same legacy. Similarly business group affiliates perform inferior to non-group firms because of their legacies but over time they improve their relative performance because of better absorptive capacity derives from their legacy structure. Performance difference between business group affiliates and their counterparts are more prominent in the older generation firms than in children of reforms.

Institutional legacies also impact the orientation of firms towards different modes of technological knowledge building. Business group affiliates have lower orientation towards external sources due to the legacy of the ideology of import substitution imbibed through close interaction with government prior to liberalization. But over time under the pressure of current environment they accelerate relative investment in different sources. Children of reforms, founded in the era when technology capability development is considered an imperative, are more aggressive in acquiring technological knowledge both from external source and internal development. But over time old generation firms accelerate their relative investment. In the business group affiliates, higher orientation of children of reforms towards importing technology is mitigated by import substitution ideology of business group affiliates, whereas that towards internal development is reinforced by technological self reliance ideology. The relative acceleration of technological knowledge sourcing by old generation firms is mitigated within business groups due to intense knowledge transfer within group affiliates.

The dissertation also reveals that payoff from technological knowledge occurs over an extended period of time after the sourcing of the same, but at different rates. The pattern of the payoff from technological knowledge depends on the given technology development mode and on the dimension of performance. The relationships are moderated by institutional legacies which largely determine firms' abilities of absorbing technology and marketing them. Older generation firms leverage external sources of technological knowledge better for achieving performance outcomes, whereas children of reforms leverage research and development better. Business group affiliates generally leverage technology better than non group firms. They leverage technology more for growth whereas non-groups firms leverage them more for profit. The results of stock market performance also indicate that shareholders possibly evaluate managers' decisions based on institutionalized beliefs or norms.

The study shows institutional legacies are important paths dependant antecedents of technology strategy and performance of emerging economy firms. Different layers of institutional environment influence firms directly and interactively. It is the first large sample empirical study to illustrate how benefits of technology investments accrue over an extended period of time, to the best of author's knowledge. The study indicates that same legacies of old generation firms and business group affiliates which are the causes of misfit in the new environment are the ones which facilitate adaptation by enhancing absorptive capacity. Performance improvement of business group affiliates in emerging economies which is opposite of predictions of institutional economics perspective of business groups, is explained in this dissertation by an adaptive perspective of business groups. Institutional economics perspective has overlooked the adaptive ability of business groups and possibly that is the reason their prediction often do not match with the actual observations. The adaptive perspective provides an opportunity of extending the theory of business groups.

The dissertation extends the organizational imprinting theory by identifying organizational routines as an imprinted element and positing that these elements are not only imprinted during founding but are also modified subsequently, especially when organizations face crises. The theoretical model developed can also potentially contribute to theory of emergence of organizational routines, which is extremely under developed, by predicting what types of routines will develop during founding of organizations and subsequent crises. The model can trace the evolution of organization right from its founding to the present context, which possibly no other evolutionary theory can. The dissertation also shows how the two subsets of absorptive capability advocated by Zahra and George (2002): potential and realized, has different performance implications for different source of technological knowledge. They also have different effects on different dimensions of performance. It also shows how absorptive capability is one of the sources of dynamic capability

For practitioners facing challenge of transforming organizations the dissertation identifies a source of organizational inertia which they need to combat or can utilize. It provides fine grain insights on effect of different technology sources including differences between capital and current investments in R&D. It can fuel policy debates on the pace of reforms and whether to have broad policies or nuanced ones for different categories of firms. Limitations of the dissertation includes: assuming linear evolution, exploring only two dimensions of institutional environment, homogenous treatment of all business groups, binary division of external environment, limited external validity of contextual antecedents, only one type of organizational element (routine) explored, and ignoring other modes of technology acquisition. Future studies can address these, and in addition, explain mediating role of other strategies, interactive effect of different modes of technology development on firm performance, exploring business groups as unit of analyses, build deeper theory of how employee loyalty and inter-organizational ties increase absorptive and dynamic capability, whether shareholders and analysts act based on institutionalized logic.