International orientation and business group performance: moderating role of product diversification (evidence from India)

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Abstract: Research on internationalisation and product diversification are primarily conducted at the firm level, leading to lack of understanding of these phenomena at the business group level. We address this gap by examining the effect of international orientation and product diversification on performance of business group and the moderating role of product diversification on international orientation and performance relationship. Using a sample of business groups from India, we tested our hypothesis by applying GLS fixed-effect regression model. Our result suggests that international orientation has a negative effect whereas product diversification has a positive effect on performance of business group. Further, presence of product diversification enhances the negative effect of international orientation on performance of business groups. Research findings have important implications for researchers as well as for business group managers.

Keywords: international orientation; product diversification; emerging economy; business group; excess value measure; India.


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1 Introduction

Business groups are “collection of legally independent businesses, often extensively diversified and interconnected by a medley of economic and social ties” [Jones and Khanna, (2006), p.455]. Group affiliated members are closely held together with multiple strong ties (Khanna and Rivkin, 2001). Diversified business groups dominate the economies of most of the emerging countries (Ghemawat and Khanna, 1998; Khanna and Rivkin, 2001; Khanna and Palepu, 2000a). They exist in emerging market to fill the existing institutional void and to help the group affiliated firms to overcome challenges from weak institutional environment (Khanna and Palepu, 1997). Major strategic decisions are carried out at the business group level and not at the individual firm level (Kumar et al., 2012). Hence, study of business groups, rather than firms affiliated to them, will provide more compelling argument and help to build on research related to the internationalisation of group affiliated firms (Guillen, 2000; Meyer, 2006).

A large body of literature in strategic management and international business has examined the relationship between internationalisation and firm performance (Bausch and Krist, 2007; Kirca et al., 2011; Oh et al., 2015). Several review articles (Hennart, 2011; Matsysiak and Bausch, 2012; Oesterle and Richta, 2013) and meta-analysis (Kirca et al., 2011; Marano et al., 2016; Yang and Driffield, 2012) have presented the overview of research in this topic. However, the true nature of the relationship is open to debate with very little consensus among researchers. A set of scholars have argued that internationalisation results in multiple benefits for the organisation and hence it is positively related with firm performance (Child and Rodrigues, 2005; Gaur and Kumar, 2009; Khanna and Palepu, 1997; Rugman, 1979; Svetlicic and Rojec, 2003). Some other scholars acknowledged the risk and failure associated with internationalisation and discussed possible drawbacks to the success of internationalisation (Jones and Hill, 1988; Lu and Beamish, 2004). Some others attempted to find optimal degree of internationalisation or potential moderator of internationalisation-performance relationship (Chang and Wang, 2007; Kumar et al., 2012; Singh et al., 2010). All these studies are at firm level, hence there is a need to check if the same arguments can be extended to business group level. In this paper, we study the effect of degree of internationalisation on performance of business groups in such an environment of an emerging economy.
Relationship between product diversification and firm performance has been studied extensively in business strategy literature (Geringer et al., 1989; Hitt et al., 1997; Kim et al., 1989; Tallman and Li, 1996), but these empirical studies show mixed results. Hitt et al. (1997) found positive effect of product diversification on performance of multinational firms. However, study by Geringer et al. (2000) and Tallman and Li (1996) found no relationship and Kim et al. (1989) found the relationship to be moderated by the extent of international diversification. We extend the understanding from firm level to business group level and study the effect of product diversification on performance of business groups especially in an emerging economy context.

Further, it is interesting to understand how product diversification will impact the relationship between international orientation and performance of business groups from emerging market. This question is of primary importance because business groups from emerging market have adopted the strategy of international diversification for their growth in recent years (Luo and Tung, 2007). Several studies have investigated the potential interaction effect of product diversification and internationalisation and the effect of such interactions on firm performance (Oh and Contractor, 2012, 2014; Oh et al., 2015). Business groups operate with high level of product diversification as a result of entering into multiple industries (Kumar et al., 2012) and hence understanding the effect of product diversification is necessary for emerging market business groups.

This study from emerging market context is interesting because of several reasons. First, the purpose of internationalisation is very different for emerging market firm’s vis-à-vis their developed market counterparts. Developed market firms internationalise in order to exploit the advantage they have in their home market (Gaur and Kumar, 2009). But, emerging market firms internationalise in order to compensate for the disadvantages they have in their home market (Gaur and Kumar, 2009) such as high risk and uncertain home economies (Contractor et al., 2007; Nachum, 2004), risk of market failure (Rugman, 1979), ill developed institutions (Khanna and Palepu, 1997) and highly regulated and constrained environment (Kumar and McLeod, 1981). Second, because of the harsh home environment, emerging market firms develop certain unique competencies that help them in their process of internationalisation and to compete successfully in the international market (Mathews, 2006). Finally, since the emerging market firms are not at advantageous position with respect to ownership, the traditional OLI framework (Dunning, 2000) cannot be used to understand fully the process of internationalisation of emerging market firms (Child and Rodrigues, 2005; Mathews, 2006).

We have integrated institutional perspective with resource-based view (RBV) to explain the behaviour of emerging market business groups. Institutional perspective is suitable for emerging market business group analysis because of the sharp contrast in the institutional environment existing in emerging market with that of the developed market context. Literature suggests that firms in emerging economies are constrained by continuously changing institutional environment (Peng, 2003), low environmental munificence (Tsui et al., 2004), and substantial roles played by governments (Deng, 2009). Institutional theory argues that business group exist in order to fill institutional voids in emerging markets and by internationalising into developed market, business groups are benefited as they move from institutionally weak emerging market to institutionally stronger developed market (Khanna and Palepu, 1997).
The RBV argues that unused firm specific resource drives growth of a firm (Penrose, 1995), resulting in diversification of the firm to new product areas (Teece, 1982) and markets (Johanson and Vahlne, 1977). Yet, firms have limited resources and they have to prioritise where they can grow within the resource constraint. The re-deployability of resources determines whether the firm will grow domestically or expand into international market (Meyer, 2006). So resource-based perspective is suitable for understanding firm behaviour. Guillen (2000) used RBV to argue that firms that can combine resources quickly and effectively form business groups by repeatedly entering a variety of industries. Business groups are no substitute to market failure rather a different organisational form in competition against other non-diversified firms or foreign MNEs lacking capability to enter multiple industries. In emerging markets, sharing of resources occur between different members affiliated to a business group and held together in ties such as cross-holdings and social ties (Bertrand et al., 2008; Douma et al., 2006). Further, business groups develop internal capital, labour and product market through diversification and resource sharing among affiliated firms in order to bypass inefficient external markets (Chang and Choi, 1988; Khanna and Rivkin, 2001). Such sharing of resources provides a unique context for emerging economies. In summary, RBV takes an internal perspective and attributes firm resources to be a driver of business group emergence.

Our empirical evidence, based on a sample of Indian business groups studied over the period of 2005 to 2014, suggests that international orientation has a negative effect where as product diversification has a positive effect on performance of business groups. However, product diversification moderates the relationship between international orientation and performance of business group negatively.

The remainder of this paper is organised as follows. We start with the review of extant literature on business group, internationalisation, and product diversification. On the basis of various theoretical and empirical contributions, we develop three hypotheses. We subsequently illustrate the data, discuss methodology and perform GLS fixed-effect regression to test proposed hypothesis. Next, we discuss the result obtained. We conclude by discussion limitations and future research scope.

2 Literature review and hypothesis

2.1 Business group

Business group can be defined “as a set of firms which, though legally independent, are bound together by a constellation of formal and informal ties, and are accustomed to taking coordinated action” [Khanna and Rivkin, (2001), p.47]. There have been several explanations for existence of business groups and roles played by them (Amsden and Hikino, 1994; Granovetter, 1994; Guillen, 2000; Khanna and Palepu, 1997; Leff, 1978). The economics perspective argues that absence of efficient factor markets and resulting higher transaction cost results in emergence of business group in emerging economies. Strategy literature argues that business groups exist in emerging economies to fill institutional voids such as misguided regulation, weak contract enforcement regime and ill developed capital and labour market (Khanna and Palepu, 1997, 2000a, 2000b). The political economics literature highlights the role of government in the emergence of business group (Ghemawat and Khanna, 1998). RBV claims that business groups are
created in emerging economies when firms combine foreign and domestic resources such as capital and technology to repeatedly enter new industries (Guillen, 2000). Sociological perspective by Granovetter (1994) argues that business groups are transformed into social entity and legitimised in the surrounding social structure by formal and informal ties. According to corporate governance literature, business groups help in maximising control through pyramidal ownership structures (La Porta et al., 2000).

The primary explanation of business group existence in India comes from institutional perspective (Singh and Gaur, 2009). Institutional perspective suggests that, in India, business group exist because of policy distortion and institutional voids (Kedia et al., 2006). Post independence, Indian Government imposed severe regulatory and bureaucratic hindrance for firms in India and indirectly forced them to form business groups. Further, the institutional environment was not conducive for business because of the weak market mechanism. In order to overcome challenges from such an institutional environment, entrepreneurs arranged their firms in the form of business groups and created internal capital, labour and product markets (Singh and Gaur, 2009).

Institutional perspective suggests that firms from emerging economies derive several benefits from their affiliation to a business group. By filling existing institutional void, business group help firms to overcome challenges from existing weak institutional environment (Chang and Choi, 1988; Khanna and Palepu, 1997). Some firms use their group affiliation to have easier access to capital, raw materials and market for their end products (Khanna and Rivkin, 2001). Large size of business group makes it easier for the firms within to gain economies of scope by sharing resources across different business. Moreover, groups generally enjoy a good relationship with the government in emerging market and hence firms from the groups can derive benefits from the government linkages (Singh and Gaur, 2009). These benefits drive business groups from emerging markets to indulge in high level of unrelated diversification and control affiliated firms through a complex ownership structure.

By using RBV, Guillen (2000) argues that firms and entrepreneurs, who learn to combine domestic and foreign resources quickly and cost-effectively, will be able to create business groups by venturing into diverse industries. The capability for entering into multiple and diverse industry includes skill for conducting feasibility study, leveraging resources, obtaining necessary licenses, securing technology know how, setting up plants and establishing distribution channels (Amsden and Hikino, 1994). In RBV, business groups are not regarded as a substitute for market failure as in institutional view. Rather, they are considered as an organisational form in competition against other non-diversified firms or foreign MNEs lacking capability to enter multiple industries (Guillen, 2000). Further, affiliated firms in a business group share resources among themselves and are in turn interlocked through equity-based ties such as cross-holdings or non-equity-based social ties (Bertrand et al., 2008; Douma et al., 2006).

2.2 Internationalisation and performance of business groups

Business groups in emerging markets are highly diversified with affiliate firms operating in multiple geographies and unrelated industries (Ghemawat and Khanna, 1998). One of the reasons for the high diversification lies in institutional perspective. Emerging markets such as India is characterised by ill developed market system, ill-suited institutional environment and ineffective property right regimes. This hinders the firm’s ability to
carry out efficient market-based transactions (Khanna and Palepu, 1997). Hence, when firms in a group internationalise they move to institutionally stronger environment and that help them to improve their performance. The RBV argues that many firms in emerging market internationalise in order to overcome challenges in domestic market and establish a strong position in both domestic and international market (Child and Rodrigues, 2005; Hennart, 2011). International expansion also helps emerging market firms to diversify risk associated with uncertainties in domestic market (Rugman, 1979). Availability of smaller size of home market in the emerging economy induces firms to look for bigger international markets. A large international market helps firms to achieve scale economies (Hitt et al., 2006; Marano et al., 2016; Svetlicic and Rojec, 2003). By entering into foreign market, many firms from emerging market get access to critical resources those are not accessible in their home market (Child and Rodrigues 2005; Cardinal et al., 2011). Moreover, internationalisation helps firm to overcome adverse effect of market failure to certain extent (Rugman, 1979). Resource support and closer linkages among group affiliated firms will lead to superior performance (Li and Wong, 2003); Peng et al. (2005) argue that institutional relatedness, degree of informal embeddedness among group affiliated firms, leads to better performance of group affiliated firms. Based on these discussions, we propose the following hypothesis:

Hypothesis 1  International orientation will have a positive effect on performance of business group from emerging market.

2.3 Product diversification and performance of business groups

Product diversification, the expansion of a firm into new product market, has been a highly popular growth strategy among firms (Hitt et al., 1994; Luo, 2002; Su and Tsang, 2015). Product diversification can be related or unrelated based on the type of industry a firm is diversifying. Product diversification strategy of multinational firms has been studied comprehensively in extant literature (Delios and Beamish, 1999; Tallman and Li, 1996). However, empirical evidence regarding the performance implication of product diversification has been inconclusive (Bausch and Pils, 2009; Hoskisson and Hitt, 1990). Some researchers claim that related diversification gives superior performance where as some other researchers have argued in favour of unrelated diversification. Yet another group of scholars have argued that the relationship between product diversification and performance is a complex one and there are multiple factors affecting it (Hoskisson and Hitt, 1990; Kang et al., 2011; Kistruck et al., 2013).

Firms undertake product diversification to spread risk of failure among multiple product lines (Hitt et al., 1994). According to the logic of RBV, firm exploits its established capabilities in multiple product market to increase risk-adjusted economic return (Prahalad and Hamel, 1990; Tallman, 1991). Further, RBV suggests that firm can venture into multiple product lines by leveraging their exiting resource and capabilities (Su and Tsang, 2015; Wan et al., 2010). While diversifying into related industry firm can make use of existing knowledge and resources and get success in the new product market (Kogut and Zander, 1992). Related diversification also enables firms to leverage their core resources across related business and generate competitive advantage through economies of scope (Barney, 1991). Product diversification provides internal market efficiency and helps in filling void in institutionally weak emerging markets (Khanna and Palepu, 1997; Lee et al., 2008; Peng et al., 2005; Peng and Delios, 2006). It also provides
market power advantages to the business group through reciprocal buying and cross-subsidy, which is not available to an individual firm. It provides synergetic benefits to the firm working within a group (Delios et al., 2008). We extend the same logic to business group level and propose following hypothesis:

Hypothesis 2  Product diversification will have a positive effect on performance of business group from emerging market.

2.4 Moderating role of product diversification

Studies examining the performance implication of interaction between product diversification and internationalisation have shown mixed results. Some studies have found that product diversification positively influence the performance of internationally diversified firms (Hitt et al., 1997). Other studies have found no significant moderating effect of product diversification on the relationship between internationalisation and performance (Geringer et al., 2000; Tallman and Li, 1996). Some other studies differentiate between related and unrelated product diversification and argue that related diversification positively and unrelated diversification negatively moderates internationalisation-performance relationship (Chang and Wang, 2007). Whereas some other studies have found the relationship to be contingent on the extent of internationalisation (Kim et al., 1989).

Product diversification can impact the internationalisation and performance relationship of a firm in several ways. First, experience gained by the firm managers from managing diversified products help in international expansion of a firm (Hitt et al., 1997); Firm can learn from their success and mistakes in product diversification and apply that learning during the internationalisation (Teece et al., 1997). Second, when product diversified firms venture into multiple markets there is greater opportunity to gain synergy (Buhner, 1987). Third, product diversification helps firms to exploit the imperfections existing in factor markets (Porter, 1985). Fourth, as a firm diversifies its product line, it is more likely to adopt a multidivisional structure (Chandler, 1962; Hoskisson and Hitt, 1988). Such mechanisms facilitate transaction across units and reduce coordination and transaction cost (Hitt et al., 1997). Hence, higher level of product diversification will help business group to have a structural arrangement conducive for internationalisation leading to improved performance levels. Finally, product diversified firms generally enjoys a greater bargaining power over others owing to the multiple input and output sources and relationships that they have.

From RBV perspective, product diversification is beneficial for firms as it helps firms to enhance risk-adjusted economic returns (Prahalad and Hamel, 1990). Institutional perspective suggests that product diversification provides internal market efficiency and helps in filling void in institutionally weak emerging markets (Khanna and Palepu, 1997). Product diversification provides business groups with power advantage by reciprocal buying and cross-subsidy and helps group affiliated firms to gain synergistic benefits (Hitt et al., 2006; Delios et al., 2008).

Further, product diversification equip business group with certain capabilities and strategies, which are instrumental for internationalisation of the business group. These advantages of product diversification are expected to help business group during their internationalisation and hence product diversification is hypothesised to positively moderate international orientation and performance relationship.
Hypothesis 3  Product diversification will positively moderate the relationship between degree of internationalisation and performance of business groups.

3 Methodology

3.1 Data source and sample

We used data from Prowess database of the Center for Monitoring the Indian Economy (CMIE) for the period of ten years from 2005 to 2014. In the first round, we collected data for 12,942 BSE listed firms that included both business group and non-business group firms. Non-business group firms are used in the first stage to calculate industry median values. We collected data starting from 2005 because before that FDI by Indian firms were very low and many of the business groups just began internationalising around this time. We used a field called ownership group code in prowess database to identify which company belongs to which business group. Each of the business group has unique ownership group code in the database. After deleting cases with missing value our final sample for first stage contained 31,772 firm-year observations.

In the second stage, we used the firm year observations from first stage to calculate business group level variables (explained in detail later in the variable section) using STATA 12 software package. This was done, as for this study business group is the unit of analysis. Finally, we obtained total 5,302 business group-year observations. In the third stage, we used those 5,302 business group-year data for our panel data analysis.

We used Indian business group data for our study because of several reasons. First, in India business groups are dominant players controlling majority of the markets (Khanna and Palepu, 2000a). This provides us an opportunity to obtain a large sample for the study. Second, data on individual business segments are available for business groups in India. This helped us to calculate excess value of the business groups. Finally, Indian firms became more active in the international stage relatively late in comparison to firms in other emerging economies (Kumar et al., 2012).

3.2 Variables

3.2.1 Explanatory variables

We have used two explanatory variables, group level product diversification and group level international orientation. In India, individual firms within a group are remarkably undiversified. Expansion into new line of business is done majorly by floating a new firm and hence each firm in general focuses on one industry segment only. Hence, product diversification can be measured by calculating number of unique two digit industry code of the industries in which a business group operates. A business group presence in a two digit industry is determined by presence of firms from the business group in the two digit industry (Khanna and Palepu, 2000a). In a two stage process, international orientation is first calculated at firm level by calculating the ratio of foreign sales to total sales of the firm. Subsequently international orientation of the business group is calculated by taking asset-weighted sum of international orientation of group affiliated firms.
3.2.2 Dependent variables

Performance is the dependent variable in our study. Performance is measured using excess value of the business group. Excess value measure helps to find true performance of business group by estimating the change in actual value of a business group firms because of their group affiliation. For measuring excess value, we employed Berger and Ofek’s (1995) method and extended it to business group level.

Excess value is measured by taking logarithm of the ratio between actual and imputed value of the business group. To calculate value of a business group we summed up value of firms affiliated to the business group adjusted by the asset of each firm. Imputed value of a business group is calculated by summing up imputed value of affiliated firms. Each firm’s imputed value is the firm’s sales multiplied by its industry median value-to-sales. Please refer to Appendix for more detail.

3.2.3 Control variable

We control for age and size of business groups. Age of each business group is determined by calculating the number of years since the oldest firm affiliated to the business group was incorporated. Size of each business group is calculated by taking natural logarithm of total asset of the business group.

4 Results

We test the relationship between international orientation, product diversification and performance using GLS fixed-effect model with data from 2005 to 2014. In Table 1, we present descriptive statistics and correlation matrix of all variables. As we can see from the table, none of the correlation is high enough to raise any concern of multicollinearity.

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  BG_age (years)</td>
<td>45.480</td>
<td>23.740</td>
<td>1</td>
<td>-0.106</td>
<td>0.403</td>
<td>0.055</td>
<td>0.249</td>
</tr>
<tr>
<td>2  FS by TS</td>
<td>0.175</td>
<td>0.239</td>
<td>-0.106</td>
<td>1</td>
<td>-0.046</td>
<td>-0.080</td>
<td>0.126</td>
</tr>
<tr>
<td>3  Product diversification</td>
<td>1.863</td>
<td>1.651</td>
<td>0.403</td>
<td>-0.046</td>
<td>1</td>
<td>0.158</td>
<td>0.371</td>
</tr>
<tr>
<td>4  Excess value</td>
<td>0.551</td>
<td>1.651</td>
<td>0.055</td>
<td>-0.080</td>
<td>0.158</td>
<td>1</td>
<td>0.333</td>
</tr>
<tr>
<td>5  Size (assets)</td>
<td>3.751</td>
<td>0.864</td>
<td>0.249</td>
<td>0.126</td>
<td>0.371</td>
<td>0.133</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Based on a sample of 5,302 business group-year observations during 2005–2014.

Table 2 presents result of the fixed-effect models. Hypothesis 1 suggested a positive relationship between international orientation of the business group and performance. In our model, the coefficient of foreign sales by total sales is negative and significant ($\beta = -0.610, p < 0.001$). Hence, in our study, we do not find support for Hypothesis 1.

In Hypothesis 2, we proposed a positive relationship between product diversification of the business group and performance. In the study results, we find this relationship to be positive and significant, supporting Hypothesis 2 ($\beta = 0.323, p < 0.001$).
Hypothesis 3 suggests that product diversification moderates the relationship between international orientation and business group performance positively. The result obtained here suggests that product diversification has a significant and negative effect on international orientation-performance relationship of business group (\( \beta = -0.279, \ p < 0.05 \)). This result did not provide support for Hypothesis 3.

Table 2  GLS fixed-effect regression

<table>
<thead>
<tr>
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<th>Model-1</th>
<th>Model-2</th>
<th>Model-3</th>
</tr>
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<tbody>
<tr>
<td>( \beta )</td>
<td>S.E.</td>
<td>( \beta )</td>
<td>S.E.</td>
</tr>
<tr>
<td>Group size</td>
<td>0.265***</td>
<td>0.057</td>
<td>0.198***</td>
</tr>
<tr>
<td>Group age</td>
<td>0.017***</td>
<td>0.003</td>
<td>0.008**</td>
</tr>
<tr>
<td>FSTS</td>
<td>-0.610***</td>
<td>0.150</td>
<td>-0.184</td>
</tr>
<tr>
<td>PD</td>
<td>0.323***</td>
<td>0.038</td>
<td>0.361***</td>
</tr>
<tr>
<td>FSTS*PD</td>
<td>-0.279*</td>
<td>0.132</td>
<td>0.930***</td>
</tr>
<tr>
<td>F statistics</td>
<td>15.63***</td>
<td></td>
<td>15.909***</td>
</tr>
<tr>
<td>adjusted</td>
<td>-0.621</td>
<td>0.626</td>
<td>0.627</td>
</tr>
</tbody>
</table>

Notes: DV: Excess value of the business group as measure of performance. 
n (group-year) = 5,302 observations. *p < 0.05; **p < 0.01; ***p < 0.001 (all two-tailed tests).

5  Discussion and conclusions

We test the relationship between international orientation, product diversification and performance of business groups using a sample of business group data for ten years starting from 2005 to 2014. We used excess value measure for measuring performance of the business groups. This excess value measurement helps omit the group affiliation effect on individual firm of the group and find out actual value of a business group. We discuss the result for the three-hypotheses in the following section.

5.1 International orientation and performance of business groups

We expected a positive relationship between international orientation of business group and performance. However, our empirical result exhibits a significant and negative relationship. By internationalising, emerging market business groups obtain benefits such as better institutional environment (Khanna and Palepu, 1997), risk diversification (Rugman, 1979), larger market (Svetličič and Rojec, 2003) and quick access to resources in foreign countries (Child and Rodrigues, 2005). However, they also face the problem of liabilities of newness and foreignness (Hymer, 1976; Stinchcombe, 1965). Some of the typical problems are establishment of facilities, systems, resources and external business network (Lu and Beamish, 2004). Also, the coordination cost and transaction cost becomes very high in diversifying in to new international market (Jones and Hill, 1988). These issues associated with internationalisation and costs involved outweigh the potential benefits. Moreover, during the early years of the study, many of the Indian business groups were starting their internationalisation and as suggested by Lu and
Beamish (2004) the initial costs of diversifying into foreign markets, are significantly higher than benefits. These arguments provide a reason for negative relationship between international orientation and performance of business groups which could have changed over time as the group internationalisation matures; the arguments being more serious if diversifying from emerging markets to already developed markets.

5.2 Product diversification and performance of business groups

In our study, we found support for Hypothesis 2, which proposed a positive relationship between product diversification and performance of business group. Some of the emerging market specific advantages of product diversification can be as follows. In emerging markets such as India, business groups fill existing institutional voids and they overcome market deficiencies by having their internal capital, labour and product markets (Khanna and Rivkin, 2001; Lee et al., 2008; Peng et al., 2005; Peng and Delios, 2006). This helps business groups to gain benefits from product diversification since minimal dependence on market leads to reduction in costs related to product diversification such as coordination and transaction costs, information misalignment costs, governance costs and others (Lu and Beamish, 2004). Further, product diversification in emerging market helps business group to fill existing institutional voids by helping business group to have their own internal capital, labour and product market which in turn leads to better performance. However, further study needs to be undertaken for understanding the influence of related and unrelated product diversification on business group performance.

5.3 Moderating role of product diversification

As opposed to Hypothesis 3, our study result suggests that product diversification negatively moderates the relationship between international orientation and performance of business groups. We discuss the possible reasons for finding negative moderating effect in following section.

Despite of the potential advantages of product diversification, simultaneous pursuit of internationalisation and product diversification can be detrimental for a firm (Chang and Wang, 2007). Product diversification and internationalisation both are risky strategies and require different types of skill and resource configuration (Kumar et al., 2012). These strategies are risky as they require organisations to spread their resource base in terms of product portfolio and geographic portfolio (Sambharya, 1995; Singh et al., 2010). One of the potential sources of cost is the impact on internal control mechanism. When firms internationalise, the top management must have information about impact of internationalisation on each of the subsidiary in order to perform well. However, when the firm is diversified into multiple products it becomes difficult for top management to gather sufficient information to have clear understanding of all units. In such case, corporate managers may shift their attention away from strategic goals and focus more on operational goals and stress more on financial control than strategic control (Hoskisson and Hitt, 1988). This leads to sub-optimal compensation contract and encourage short-term focus.

Long-term investment fostering innovation and productivity growth are sacrificed (Delios and Beamish, 1999). Second, when firms go international, they find it difficult to achieve a fit between the internal resources and external environment (Ruiogrok and
Wagner, 2003). When a highly product diversified firm goes international, the differences in institutional environment, government regulations and infrastructures, increases the misfit between resources and external environment. To adjust to the environment, firms frequently reconfigure their internal systems and it consumes time and resource and put extra burden on the top management. Top management focus may divert away from core business issues (Chang and Wang, 2007). Finally, when firms go international number of foreign transactions increase and coordination and communication between headquarters and different units become more difficult leading to governance challenges. If these firms are product diversified then the amount of coordination required will be much higher and it is possible that the cost and demand of coordination exceed available managerial capability (Franko, 2004; Tallman and Li, 1996).

When a highly product-diversified group from emerging market internationalise, the benefits related to learning and experience of product diversification are not reaped fully. The institutional environment of emerging markets is very different from other markets and hence any experience gained by the manager out of product diversification in home market, may not be useful for international expansion. Further, one of the advantages of product-diversified firms from internationalisation comes from the learning gained though success and failure in home market during the product diversification. However, because of the institutional difference between the home market and foreign market (emerging to developed market), learning from emerging market product diversification will be of less use for firms in their international market. Cost of product diversification from internationalisation of emerging market firm, will be increased further due to different resource requirement, regulatory structure, infrastructure and culture between home market and host market. In sum, advantage gained by the emerging market firms from their product diversification becomes less whereas cost becomes more when these firms go international.

Figure 1  Moderating role of PD on IO and performance relationship

Notes: IO: international orientation; PD: product diversification.
International orientation and business group performance

In Figure 1, we present the interaction effect. In the graph, relative gradient of line for high and low product diversification (PD) suggests that as the level of international orientation increases, performance of business group with high level of PD decreases much more than that of business group with low level of PD.

We did not consider the types of PD in our study. Future research can look at related and unrelated PD and their effect on international orientation and performance of business groups. Further, we considered a set of business groups from India only. Future research can take business groups from multiple countries, specifically from BRICS economies, and test the model for generalisation on findings of internationalisation of business groups from emerging economies.

Our study has several implications for managers in business groups from emerging economies. Institutional voids exist in emerging markets due to the absence of efficient markets for labour, capital and other resources. According to Khanna and Palepu (1997), this is overcome by creation of business groups in emerging economies to internalise these resources within the group thus reducing dependence on a market mechanism for the same. However, in developed economies efficient competitive market exists for capital, labour and such resources, and hence while going international from emerging markets, business group managers not only find limited use of the knowledge and skills of operating in a weak institutional environment in their home country, but must also be quick learners to be able to leverage strong institutions and markets of host countries to acquire competitive resources. This helps business groups to perform better in international markets. Accordingly, given diverse and geographically dispersed operations, business groups aiming to venture into international market must plan and develop required managerial capabilities to handle the increased demand for coordination and control across borders. Given that competitive dynamics in their home market is quite different from host markets, business group managers must carefully develop information handling mechanisms to help top management team to take strategic decisions while limited the command and control mechanisms that is short term focused and imposes undue control on subsidiaries. The challenges arising out of the above is further complicated by the findings that internalisation of business groups adversely affects performance. The fact that industry sector diversity within the group has positive effect on group performance and therefore may be encouraged in a domestic home country context prior to internationalisation further compounds complexity mentioned before.

Managerial experience from emerging market business groups may need to be skilfully and selectively leveraged in context of internationalisation of such business groups into developed markets. Together with this managers need to quickly learn and apply the learning in the developed market. Hence, these factors need to be considered while planning for internationalisation.

In conclusion, our study suggests that success of business group internationalisation depends on the level of PD of the business group. A business group with high level of PD will find it difficult to internationalise as compared to business group with low level of PD.
References


**Notes**

1 Internationalisation and internal orientation have been used interchangeably.

2 We started with Pooled OLS regression. The result of F statistics test gave a p-value smaller than 0.05, favouring fixed effect model over pooled OLS. Further, result of the Breusch-Pagan test with p-value smaller than 0.05 suggested random effect model over pooled OLS. Finally, the result of Houseman test indicated a very small p-value, suggesting that fixed effect model is the best estimation model for our study.

**Appendix**

We show the detailed calculation of excess value ($EXVAL_{BG}$) of the business groups. First, we calculate value of a business group $V_{BG}$ using the following equation.

$$V_{BG} = \sum_{i=1}^{n} \left[ \frac{A_i}{TA_{BG}} \right] \times [VF_i].$$

(1)

In equation (1), $VF_i$ is the value of firm $i$ in belonging to a particular business group and $n$ is the total number of firms in a business group. Value of a firm in a business group is the sum of total equity and total borrowings. $A_i$ is the total asset of firm $i$ and $TA_{BG}$ is the total asset of the business group.

Then we calculate imputed value of the business group $IV_{BG}$ by using following equation:

$$IV_{BG} = \sum_{j=1}^{n} A_{ij} \times \left[ \frac{IND_j(V/AI)_{med}}{AI_{ij}} \right].$$

(2)

In equation (2), $A_{ij}$ is the accounting item (sales here) of the $j^{th}$ firm of the business group. $IND_j(V/\text{AI})_{med}$ is the industry median of value-by-accounting item (value by sales here) of the industry in which $j^{th}$ firm of the business group operates.

Finally, we calculate excess value of the firm, $EXVAL_{BG}$ using following equation.

$$EXVAL_{BG} = \ln \left[ \frac{V_{BG}}{IV_{BG}} \right].$$

(3)

In equation (1), $V_{BG}$ is the actual value of the business group and $IV_{BG}$ is the imputed value of the business group.