Theoretical Underpinnings of the Determinants of Firm Performance : A Literature Review

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Abstract

Literature survey on the determinants of firm performance indicates that earlier studies offered no consensus over the subject to confirm the factors and direction of these factors which determine firm performance. We maintained that the results for firm performance at an aggregate level are not valid for the firms classified based on industries. We also argued that firms cannot increase their performance indefinitely with increase in their sizes. After a certain point, firm performance decreases with the increase in firm size. Furthermore, in view of the recent economic reforms, it is essential to evaluate the role of business groups in India.

Keywords: **firm performance, business groups, emerging markets**

JEL Classification: G30, G32, G34, M10, M21

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Analysis of the determinants of firm performance is of utmost importance to all stakeholders of a firm, especially to its common equity investors (Kakani, Saha, & Reddy, 2001). Academic research portrays various industry wide factors and firm specific variables underpinning financial performance of a firm. A firm operating in a concentrated industry having high investment and brand name with least agency cost realizes higher performance (Bain , 1951 ; Baumol, 1959 ; Comanor & Wilson, 1967 ; Hall & Weiss, 1967 ; Kakani et al., 2001 ; Sherman & Tollison, 1971). Furthermore, it is essential that well established economic and legal institutions exist so that contract enforcement is predictable for the firms to deliver high performance (PortaLa, Lopez-de-Silanes, Shleifer, & Vishny, 1998).

Industries having high concentration have less number of sellers. One will find, on an average, more effective collusion among the sellers in such industries. On the other hand, there is higher profit destructive competition among sellers operating in industries having less concentration. Thus, we expect a positive impact of industry concentration on profitability of the firms operating in that industry. Certain industries, for example, the capital goods industry, require higher investments. We argue that greater intensity of investment creates entry barriers for

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new entrants, because of which existing firms enjoy less competition and earn more profits. Thus, investment requirement has a positive association with firm profitability. Apart from investment requirements, brand name creates entry barriers for new entrants. Therefore, brand name and firm profitability have a positive relationship. Furthermore, firms with least agency cost perform better than the other firms.

We review important industry-wide factors studied for their impact on firm performance. These are industry Herfindahl - Hirschman index (HHI), which is a proxy for industry concentration ; capital requirement for the industry, which is a proxy for higher investment ; and industry advertisement expenses, which is a proxy for brand name (e.g. Bain, 1951 ; Comanor, & Wilson (1967).

We also evaluate firm level variables for their impact on firm profitability. Important variables studied are promoters' holding of a firm, firm size, firm leverage, firm age, export intensity of a firm, and advertisement expenses incurred by a firm (e.g. Amato & Wilder, 1985 ; Kakani et al., 2001 ; Lee, 2009). Higher promoters' holding and higher leverage of a firm mitigate agency issues. Therefore, these variables have a positive association with firm performance. Firm size, which is a proxy for higher investment, creates entry barriers as large existing firms enjoy benefits of economies of scale, which is difficult for the new entrants to achieve. However, no firm can enjoy the benefits of economies of scale forever. Thus, after a certain point, the firm performance decreases with an increase in firm size. Thus, firm size has an inverted U shape relationship with firm performance. Export intensity of a firm, firm age, and advertisement expenses of a firm create a brand name for firms. Thus, firms having high exports, age, and advertisement expenses perform better than the other firms.

We also review literature specific to emerging markets, where the dominance of business groups provides co-insurance to related firms. Developed economies are characterized by well-established capital, labor, and product markets as well as prompt and efficient legal recourse systems (PortaLa et al., 1998). Availability of efficient legal systems ensures systematic enforcement of contracts by all the parties involved. This, in turn, helps to raise resources from various well established markets in an economy. Unlike developed markets, emerging economies suffer from institutional voids. Absence of well-established financial and legal institutions impedes raising resources from the market. These institutional voids result in the existence and growth of business groups in emerging economies, which act as a proxy to these institutional requirements (Khanna & Palepu, 1997).

With economic reforms in any economy, economic and legal institutions develop. As these institutions develop, one expects that the importance of business groups should reduce as they are no longer needed to provide facilities as a proxy of established institutions. However, despite institutional environmental changes, business groups in India have still dominated the corporate sector activity (Sarkar, 2010). India provides a unique setting wherein both business group affiliation and economic reforms are expected to have a significant impact on firm performance.

Research Gaps

The strong motivation to study the determinants of firm performance arises from the fact that earlier studies offered no consensus over the subject to confirm the factors and direction of these factors which determine firm performance. Furthermore, the results for firm performance at an aggregate level are not valid for the firms classified on the basis of industries (Bass, Cattin, & Wittink, 1978). We did not find industry level analysis related to firm performance in India. Considering the purpose it serves to the larger section of the society, we assert that it is imperative to study the determinants of firm performance in the advent of economic reforms in India. Hence, we identify a number of research gaps throughout the paper.

Literature Review

↳ **Impact of Industry Wide Factors on Firm Performance :** Comanor and Wilson (1967) maintained that industry

advertisement expenses and capital requirements of the industry have a positive impact on industry profitability. Shortcoming of this study is that it did not consider intra industry variation in profitability in the model. Sherman and Tollison (1971) found that industry advertising expenses did not impact industry profitability.

Marcus (1969) examined the size profitability relationship for firms operating in 118 industries separately for each industry. Out of 118 industries, the coefficient of size for 35 industries was positive. Size coefficient was negative for nine industries and was not significant for rest of the 74 industries. Thus, the author concluded that increase in size did not uniformly increase the profitability of the firms operating in all industries. However, Shepherd (1972) and Amato and Wilder (1985) found a negative relationship of size with firm profitability.

Most of the studies conducted on firm performance are on an aggregate level. Hence, these studies assumed a homogeneous impact of independent variables on performance of firms operating in different industries. The study conducted by Bass et al. (1978) provided a statistical approach to examine the assumption of homogeneous relationships of independent variables on dependent variables underlying in earlier cross-sectional studies. The hypothesis developed was that the impact of industry concentration and industry advertising intensity on profitability is not the same for firms operating in different industry groups. Rejection of the null hypothesis showed that all the observations did not come from the same population, that is, the relationships between variables were not homogeneous across the industry groups. Results indicate that the relationship was not homogeneous across different industries. Thus, the results obtained from pooling all the data must be rejected. For the first-time, the authors proved statistically the need for industry level analysis for examining the determinants of firm profitability. Thus, the relationship among variables forming different groups of firms based on industry is different.

↳ **Impact of Firm Specific Variables on Firm Performance :** Baumol (1959) proposed that the profits increase with an increase in size of firms due to economies of scale enjoyed by larger firms. Following this, Hall and Weiss (1967) empirically examined the size - profitability hypothesis. Pooled cross sectional regression results showed that size had a positive and significant relationship with ROE and ROA. The shortcoming of this study is that the authors pooled data from varied industries for analyzing the size - profitability hypothesis. Pooling the observations presupposes equal parameters for diverse industry groups. If this assumption is incorrect, the results based on estimated coefficients from this model are not generally applicable. Furthermore, it is difficult for any business to increase profits indefinitely with an increase in its size. The total profits decrease after a certain level of size. This quadratic relationship between firm size and firm profitability was not tested by the authors.

Beard and Dess (1981) studied the relative importance of industry-wide factors (industry profitability) and firm specific variables (relative leverage, market share, and relative capital intensity) for determining the financial performance of the firms. Results showed that industry profitability had a positive coefficient in all regressions. Relative leverage and relative capital intensity had negative coefficients in most of the years. Thus, the authors concluded that industry wide factors as well as firm specific variables both helped to explain the variations in firm profitability. The shortcoming of this paper is that the multicollinearity among the variables was not examined. Furthermore, variables like export intensity of a firm, firm age, advertisement expenses of a firm, which may impact the profitability, were not considered. Also, aggregate level analysis may not be applicable for firms classified based on different industries. Furthermore, a variable like relative leverage gets impacted by firm leverage if the firm leverage is not removed from industry leverage. This results in endogeneity of variables.

Majumdar (1997) showed that the impact of firm size was positive and significant for firm profitability. Furthermore, age had a negative and significant impact on profitability. The shortcoming of this paper is that the author considered only 1 year data. The author did not provide information on selection of data, especially for firms having data that was more than 1 year old. Also, it was an aggregate level analysis, and the results may not be applicable at classified levels. Kakani et al. (2001) examined the determinants of financial performance of Indian listed firms during the post liberalization period. The results showed that firm size, marketing expenses of a firm, international diversification of a firm, and net exports of a firm had a positive impact on the financial performance

of a firm. Firm leverage, firm age, domestic institutional holding of a firm, and public shareholding of a firm had a significant negative impact on financial performance of a firm. The limitation of this paper is that it is again an aggregate level study which may not be meaningful at classified levels. Furthermore, the current value of leverage is impacted by current performance and vice versa, resulting in endogeneity of variables (Rajan & Zingales, 1995). Therefore, lagged values of leverage should be used as an independent variable to explain firm performance.

Lee (2009) studied determinants of firm performance and particularly, the impact of firm size on firm profitability. The results showed that firm size had an inverted U shape relationship with firm profitability. Furthermore, coefficients of previous year's ROA of a firm, market share of a firm, firm R & D expenses, industry concentration, interaction of advertising expenses of a firm and a firm's market share, interaction of advertising expenses of a firm and a firm's capital intensity, and interaction of industry concentration and a firm's capital intensity were positive and significant. The shortcoming of this paper is that aggregate level analysis cannot be generalized at classified levels. Furthermore, multicollinearity among the variables was not examined.

↳ **Impact of Group Affiliation on Firm Performance :** Khanna and Palepu (1997) argued that diversified businesses in developed countries have many disadvantages because of well-developed institutions such as capital and labor & product markets. However, the existence of institutions which make diversification costly is absent in emerging economies. Capital markets in developed economies are equity focused and are characterized by better disclosure norms, and the market for corporate control is well developed. In emerging economies, capital markets have illiquid equity markets, nationalized banks, and debt markets with weak monitoring power. Similarly, labor and product markets are underdeveloped in emerging economies. The emerging economies have scarcity of management talent, few consumer activists, high corruption, insufficient legal system, politically motivated regulators, and unpredictable contract enforcement. Thus, business groups can be successful in emerging economies due to deep-rooted institutional voids by imitating the functions of these institutions. For example, the business groups can imitate the functions of capital markets by acting as venture capitalists to fund the upcoming projects of a group affiliate. Institutional voids make it costly for standalone firms to compete with business group firms. Khanna and Palepu (1999) found that group affiliation had a positive impact upon the profitability of Indian firms during the economic transition due to slow development of market intermediaries and higher transaction cost in the market even after deregulation.

Khanna and Palepu (2000) studied the impact of group affiliation on performance of Indian firms. Results showed that group affiliation was beneficial after certain level of diversification. The shortcoming of this paper is that standalone firms like ITC do operate in more than one industry in India. However, the number of industries a standalone firm operates in was assumed to be one. Furthermore, the authors also examined firm performance only for 1 year, that is, for the year 1993. Analysis of only 1 year is not sufficient enough to be generalized for a longer time period. Furthermore, the authors did not consider important variables like promoters' holding of a firm, firm leverage, firm size, firm age, export intensity of a firm, advertisement expenses of a firm and industry concentration.

Khanna and Rivkin (2001) found that only group affiliation had a positive impact upon the profitability of Indian firms, but also, profitability among group members was highly correlated as compared to profitability of firms outside the group. Kali and Sarkar (2005) found that business group affiliation continued to generate higher market valuation vis-a-vis standalone firms for many years into the transition in India. However, diversification was not the source of these benefits. Instead, they argued that propping through profit transfers among firms within a group and better monitoring through group level directorial interlocks explained the higher market valuation of business group affiliated firms. Gopalan, Nanda, and Seru (2007) found evidence of propping among Indian business groups. The authors studied the working of internal capital markets among Indian business groups. They found that the weaker firms were supported by transfer of cash across group firms through intra-group loans. An important reason for providing support would be to avoid default by a group firm and consequent negative spillovers to the rest of the group.

Khanna and Yafeh (2007) contended that diversified business groups should be more common in economies with less developed market institutions. Thus, business groups were considered as a response to market failures and institutional voids in the emerging economies. Mishra and Akbar (2007) confirmed that group affiliation was beneficial in emerging markets. However, they found that the benefits of group affiliation were not equally available to related-diversified and unrelated diversified groups. Unrelated-diversification had no impact on firm value.

Another stream of research has an opposite view on group affiliation and firm performance. Bertrand, Mehta, and Mullainathan (2002) found evidence of tunneling in India among group affiliates. They showed a negative relationship between group affiliation and firm profitability. Singh, Nejadmalayeri, and Mathur (2007) found that diversified firms performed significantly worse than focused firms. Singh and Gaur (2009) found that group affiliated firms performed worse than unaffiliated firms. Lensink and van der Molen (2010) tested the robustness of the study of Khanna and Palepu (2000) for the period from 1996–2001. Taking 1993 data, Khanna and Palepu showed that the relationship between diversification and performance of group affiliated firms was U-shaped. Accordingly, Lensink and van der Molen tested whether this relationship held for the 1996–2001 period. After controlling for firm age, firm size, and firm leverage, the analysis revealed that the results offered by Khanna and Palepu (2000) were not robust. Increase in diversification did not increase the performance of group affiliates. Rather, group affiliation was profitable due to working of internal capital market within the business group. Authors also argued that group affiliation is particularly beneficial for firms that suffer financial constraints. Almeida, Kim, and Kim (2014) found that after the 1997 Asian financial crisis, Korean business groups transferred cash from low growth firm affiliates to high growth firm affiliates.

Research Implications

We comprehend that earlier studies offered no consensus over the subject as to confirm the factors and direction of these factors which determine firm performance. We do not know whether each of these variables positively or negatively affect firm performance, and theory offers predictions in both ways (Khanna & Rivkin, 2001). For example, there are two strands explaining the impact of group affiliation on firm performance. This can be because of two reasons. Firstly, most of the earlier studies for firm performance were conducted for a shorter period of time. However, the impact of independent variables on dependent variables may change during different time periods. For example, firm performance in India and across the world got impacted by the global financial crisis of 2008 (Saji, Harikumar, & Kasim, 2013). Secondly, the results for firm performance at an aggregate level are not valid for the firms classified on the basis of industries (Bass et al., 1978).

Conclusion

We provide theoretical underpinnings of the determinants of firm performance. There is vast disagreement among the authors for the factors and direction of these factors which determine firm performance. In view of the purpose that it serves a larger section of the society, we assert that it is imperative to study the determinants of firm performance. Specifically, one can examine the size - profitability hypothesis and impact of group affiliation on firm performance at an aggregate level and also at disaggregate levels for the firms classified based on industry by considering a longer time frame.

Limitations of the Study and Avenues for Future Research

We examined the literature on determinants of firm performance. Based on this study, an empirical research can be conducted. One needs to conduct a disaggregate level analysis to understand the impact of independent variables

on a dependent variable. Therefore, there is a need of comprehensive research to study the determinants of firm performance at an aggregate level and at disaggregate levels for the firms classified based on industry by considering a longer time frame.

Furthermore, in view of the recent economic reforms in India, one expects that the importance of business groups should reduce as they are no longer needed to provide facilities as proxy of established institutions. India provides a unique setting, wherein both business group affiliation and economic reforms are expected to have a significant impact on firm performance.

Specifically in the Indian context, one can study the following :

(1) The impact of firm size on firm performance is assumed to be positive as larger size creates an economies of scale for the firms and creates entry barriers for the new entrants. However, no firm will be able to increase performance indefinitely with the increase in its size. Firm performance decreases after a certain point of increase in its size.

(2) There are two opposite strands for impact of group affiliation on firm performance. One strand advocates benefits of group affiliation and another is the opponent of group affiliation. It can be because the impact of group affiliation has been studied for shorter periods of time, and that too, with insufficient control variables, which cannot be generalized over a longer period of time.

(3) Results for firm performance at an aggregate level are not valid for the firms classified based on industries. One needs to conduct a disaggregate level analysis to understand the impact of independent variables on the dependent variable.

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