CHAPTER- 3
REVIEW OF LITERATURE AND HYPOTHESES
DEVELOPMENT

The chapter presents a systematic review of literature relevant to the present study. The studies highlighting the association of diversification with systematic risk and cost of capital have initially been discussed, followed by an exhaustive review of empirical evidence on the relationship between diversification (and its strategy) and corporate value. Research studies exploring the plausible sources of value gains or losses from diversification have thereafter been discussed. This comprehensive literature survey provides holistic view of the research issue and leads to the development of research hypotheses for the present study. The methodological observations emanating from the literature review have been summarized in the concluding section.

3.1 INTRODUCTION

The diversified business groups and the conglomerates accounts for more than half of the gross industrial production across numerous developed and emerging economies. Hence, an understanding of the performance, value and cost implications of the diversified form of organization render valuable implications for the disciplines of finance and strategy and for the economy as a whole. Firms consider corporate diversification as a path to value creation (Marinelli, 2011). India is amongst the leading emerging economies with a long history of business houses. In emerging economies characterized by high rate of growth, industrially and globally diversified business houses are described as the new business giants by Khanna and Palepu (2006). The widespread presence of business groups in India has spawned considerable interest in addressing the related research issues, such as an assessment of the differences in the risk characteristics between diversified organizations and non-diversified firms, an examination of differences in the cost of capital between diversified firms and focused firms, an exploration of differences in the intrinsic and market valuations between diversified organizations and specialized companies, an examination of the diversification strategy (related or unrelated) that produces superior value or performance implications for the diversified organization, and an
assessment of the role of an economy’s institutional environment in shaping the diversification-value (or performance) relationship.

The finance literature on corporate diversification largely focuses on identifying whether a business segment (or affiliate) is better off alone than being a part of a conglomerate (or diversified group). Alternatively, it examines whether there are performance and value gains to diversifying firms from corporate diversification, where such gain is measured by the relative value of the diversified firm vis-à-vis single segment firm. The strategic management literature on corporate diversification attempts to identify the type of diversification strategies (related or unrelated) that lead to superior value or performance.

An extensive literature survey has been presented to provide useful insights into the empirical advancement in the domain of corporate diversification with the working hypotheses in the present chapter. The chapter has been organized as follows: Section 3.2 presents a systematic review of the relevant studies concerning the research objectives under study, structured into five sub-sections from Sub-section 3.2.1 through 3.2.5. Section 3.3 concludes the chapter.

3.2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

As a foundation for subsequent analysis, this section provides an objective-wise literature review, states the testable hypotheses for the study and brings out the vital methodological observations. In Sub-section 3.2.1, a discussion on the diversification-systematic risk relationship is initiated, following which the empirical evidence on the association between diversification and cost of capital has been presented. Sub-section 3.2.2 puts forth the empirical studies identifying the effect of diversification on corporate value, categorized into three strands on the basis of direction of impact (negative, neutral and positive). Similarly, the literature regarding the impact of diversification strategy on corporate value has been reviewed in Sub-section 3.2.3, organized into two strands on the basis of superiority of a particular diversification strategy. Further, by referring to a number of relevant studies on corporate diversification, the potential sources of value gains (or losses) from diversification have been looked for in Sub-section 3.2.4. Lastly, noteworthy observations with regards to the methodology adopted in the eminent studies have been documented in Sub-section 3.2.5.
3.2.1 Diversification and Company’s Cost of Capital

Prior to a systematic review of the empirical literature on the impact of diversification on cost of capital, it is essential to gain theoretical understanding of how the cost of capital is influenced by corporate diversification moves. The conventional view among the theorists and academicians is that the diversification can only eliminate the risk component that is specific to a business (called as unsystematic risk) and the systematic risk that is common to all the business cannot be diversified away. The proponents of the modern portfolio theory thus rule out any statistical relationship between the corporate diversification and systematic risk. Hence, it leads to the notion that organizational form does not influence a company’s cost of capital (Hann et al., 2013). Another argument hypothesized that the corporate diversification, by reducing the default risk (via imperfect correlation of business units’ cash flows or returns) and increasing the debt capacity for the combined firm, leads to reduction in the diversified organization’s systematic risk and hence its cost of capital (Ross et al., 2005; Hann et al., 2013). Hence, the knowledge of the nature of the association between diversification and systematic risk enriches the understanding of the diversification-cost of capital relationship (Lubatkin & O’Neill, 1987; Olibe et al., 2008).

Numerous studies in the past (e.g., Montgomery & Singh, 1984; Lubatkin & O’Neill, 1987; Barton, 1988; Lubatkin & Rogers, 1989; Lubatkin & Chatterjee, 1994; Olibe et al., 2008; Hann et al., 2013) suggested that systematic risk differs among firms with different types of diversification strategies with mixed results. Systematic risk reflects investors’ expectations about the future volatility of a firm’s total return relative to that of the market as a whole (Khan & Jain, 2011). Lubatkin and O’Neill (1987), by evaluating 297 mergers, contended that the diversifying mergers and acquisitions are associated with a reduction in the levels of systematic risk, with the findings being statistically significant only for related mergers and acquisitions (M&As). Their argument runs contrary to the wisdom of modern portfolio theory, and that the evolving strategic management literature and corporate diversification theory provides better explanation for the risk outcomes of diversification. In a ‘perfect world’ with the assumptions of efficient capital markets and rational investors, the shareholders or investors can diversify and eliminate the unsystematic risk associated with their investments much more conveniently and cost-effectively than the
conglomerates by simply purchasing the common stocks of various companies (Ross et al., 2005; Berg, 2016). However, such actions have no impact on the market component of risk. Based on the premise of passive management, the modern portfolio theory postulates that the cash flow streams of two or more businesses can only be combined but not altered, whereas the corporate diversification theory assumes that the management, through their dynamic actions, can alter the risk profiles of the diversifying firm and consequently lower its systematic risk (that shareholders cannot do on their own by diversifying their portfolio of stocks) (Lubatkin & Chatterjee, 1994). On the contrary, in an attempt to examine if the corporate diversification moves affects market participants’ assessment of firm’s market risk exposure, Olibe et al. (2008) postulated an increase in the systematic risk with augmented corporate (international) diversification.

The type of diversification strategy may have an effect on investors’ perceptions of a firm’s market risk (Barton, 1988). Montgomery and Singh (1984) examined the relationship between diversification strategy and systematic risk for 99 firms during the time period 1973 to 1978 and found that betas for unrelated diversifiers were significantly higher than those of other firms. Similarly, Barton (1988) examined if diversification strategy affects systematic risk while controlling for capital intensity, monopoly power and financial leverage for 276 firms over the time period 1970-74, and found that that unrelated diversified firms had significantly higher systematic risk, as well as low market power, low capital intensity, and high debt. Lubatkin and Rogers (1989) also corroborated the same by depicting lower levels of systematic risk for the firms diversifying in constrained manner. In their pursuit of testing the applicability of the modern portfolio theory into the domain of corporate diversification, Lubatkin and Chatterjee (1994) examined the relationship between corporate diversification and two forms of stock returns risks, while controlling for the other factors that influence risk, such as capital intensity, R&D intensity, leverage, size, and profitability. The authors found a curvilinear relationship between the corporate diversification and stock return risk, proposing that firms must diversify into similar lines of businesses (i.e., constrained diversification) rather than into identical or unrelated businesses in order to minimize risk. The above empirical

33 Constrained diversification is a process of combining distinct business units that are linked by certain core technologies (Lubatkin & Rogers, 1989).
evidence is indicative of the fact that corporate diversification might positively influence the cost of capital due to its ability to lower the systematic risk.

There are sufficient number of studies which evaluate corporate diversification from the perspective of market risk, but there is minimal evidence on the corporate diversification’s effect on cost of capital. The conventional view among the academicians and researchers is that organizational form does not matter for a firm’s cost of capital because, while the imperfect correlation of business unit cash flows may help reduce idiosyncratic (or unsystematic) risk, it has no effect on the systematic risk (Ross et al., 2005; Hann et al., 2013). Contrary to this view, Hann et al. (2013) found that diversified firms have lower cost of capital than the comparable portfolios of stand-alone firms using the measure of excess cost of capital. By conducting the research for a sample of 30,554 single- and multi-segment firm-year observations over the period from 1988 to 2006, they substantiated a significantly positive relationship between excess cost of capital and cross-segment correlations, consistent with the ‘coinsurance effect.’ An average 4.8 (6.4) per cent gain in the total firm value when moving from the lowest to the highest cash flow (investment) coinsurance quintile revealed the economic significance of their findings. Borrowing from their research work, the following hypothesis in the alternate form would be tested:

\[ H_1: \text{Cost of capital of diversified business groups is lower than the cost of capital of unaffiliated standalone companies.} \]

3.2.2 Diversification and Corporate Value

Although there is substantial empirical literature in the fields of corporate finance and strategic management that studies the relationship between diversification and corporate value with different research focus and objectives, but such literature has not reached a decisive conclusion as to whether a firm should diversify or remain focused on its core business. Despite voluminous research on the subject, there are

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34 Drawing on the methodology of Berger and Ofek (1995), their excess cost of capital measure benchmark the cost of capital of a diversified firm against that of a comparable portfolio of stand-alone firms. The cost of capital is the weighted average of cost of debt and cost of equity, where ex ante expected returns, ex post realized returns, and hybrid (combination of ex ante and ex post) approaches have been employed for both the components of financing. The cross-segment cash flow and investment correlations were considered as an inverse measure of coinsurance. In order to avoid spurious results, the relationship between excess cost of capital and coinsurance was controlled for various firm-specific characteristics, such as size, number of segments, book-to-market, momentum, leverage, and financial constraints (Hann et al., 2013).
inconsistencies in the findings across time and economies. Numerous U.S. based studies rendered strong evidence to conclude that diversified firms trade at a significant discount compared to standalone firms. On the contrary, the studies pertaining to emerging or less-developed economies provide conclusive evidence in favor of corporate diversification and that the diversified companies or groups have high relative corporate valuations. The global or cross-country studies, however reported that the value of corporate diversification is contingent upon the extent of a country’s institutional development. The value of diversification also varies across time and under different capital market conditions. The diversified organizations are relatively more valuable than focused ones when the cost of external finance is high (Yan, 2006). The literature concerning diversification-corporate value relationship has been discussed in three rounds, each reflecting different strands of opinion.

**Round 1: Diversification destroys corporate value**

The 1960-70s view held that conglomerates can operate unrelated business more efficiently than these businesses could be operated as stand-alone units. The reversal of the diversification activity and a trend towards refocusing in the 1980s provided evidence of the costs exceeding the benefits of diversification (Yan, 2006). Most of the studies in developed economies (after 1980s) address the costs of diversification and the resultant ‘diversification discount.’ The creation of conglomerates thereafter in the advanced economies only reflected an outcome of empire building strategies undertaken by corporate managers to their benefit but at the expense of shareholders (Gomes & Livdan, 2004).

The foundational research work (e.g., Lang & Stulz, 1994; Berger & Ofek, 1995; Comment & Jarrell, 1995; Lins & Servaes, 1999) that examined the relationship between corporate diversification and value of the firm suggested a negative relation between corporate diversification and firm value. By taking Tobin’s $q$ as measure of market value and number of segments, Herfindahl index (assets) and Herfindahl index (sales) as proxies for diversification, Lang and Stulz (1994) provided evidence that Tobin’s $q$ is strongly negatively correlated with the degree of firm diversification throughout the 1980s. The comparison of Tobin’s $q$ of diversified firms to that of specialized firms revealed that the capital markets valued single-industry firms highly over the diversified firms. Additionally, the authors investigated if such valuation
difference can be explained by the industry effects.\textsuperscript{35} Accounting for such industry effects, however reduced the magnitude of the diversification discount, but it still remained positive and significant for every sample year. In order to substantiate the findings, the authors re-estimated the regressions with additional firm-specific controls (i.e., the variables correlated with diversification, such as size, access to capital markets, and R&D intensity in this study) and modified samples, which confirmed the presence of diversification discount. This further assured the robustness of the empirical evidence that diversification reduces value.

Berger and Ofek (1995) also found an average loss of 13 to 15 percent from diversification during 1986-91. In order to estimate the valuation effect of diversification, the authors pioneered the excess value methodology (also called the ‘Industry Multiplier Approach’), in which the total actual value of the diversified firm is compared with the sum of the imputed values of its individual business segments if operated as standalone entities. The results from pooled regression analysis of excess value on diversification dummy with firm-specific controls reported negative relationship between diversification and excess value and documented that the actual value of the diversified firms is lower than the sum of the imputed values of their segments. They also used profitability as an alternative measure of value and found similar results across both the measures and confirmed that a segment is better off alone than being a part of a conglomerate.

Comment and Jarrell (1995), by studying an association between the change in focus and stock returns and covering approximately 2000 exchange listed American firms per year from 1978 to 1989, empirically evidenced a 3-5 percent increase in the stock return with a unit increase in the focus. By considering four different measures of focus, namely, number of segments reported by management, number of four-digit SIC codes assigned by Compustat, asset-based Herfindahl index, and revenue-based Herfindahl index, their research documented an increase in all the measures during the sample period. The regression analysis of stock returns (same-year and prior-year) on change in focus measures, while controlling for the accounting measures of

\textsuperscript{35} Under industry-adjusted approach, the portfolios of specialized firms were constructed that match the industry composition of the corresponding diversified firms. The Tobin’s $q$ of the diversified firm was then compared with the industry-adjusted $q$, calculated as the value-weighted average of the stand-alone $q$’s of the divisions. The stand-alone $q$’s are calculated as the average $q$ of the specialized firms operating in the division’s three-digit SIC code (Lang & Stulz, 1994).
performance and wealth effects of acquisitions and divestitures, depicted a reliably positive association between the change in focus and stock return. Their findings also show that the diversified firms do not benefit from the underlying efficiencies which are theoretically thought to induce corporate diversification (viz., greater debt capacity, creation of internal capital markets for inter-segment cash transfers), rather diversification makes firms a likely target for takeover. Additional evidence on the valuation effect of corporate diversification has been provided by Lins and Servaes (1999). They replicated the methodology of Berger and Ofek (1995) and reproduced the results for the economies of Germany, Japan, and United Kingdom. Following suit, the authors corroborated significant diversification discount of approximately 15 percent in the U.K. and 10 percent in Japan for the years 1992 and 1994. Moreover, for Japanese diversified firms, the existence of the diversification discount was attributable to their strong belongingness to a formal industrial group (known as *keiretsu* organizations).

It has been widely held that the corporate diversification had been a predominant path of growth in the developed economies during 1950-1980. The massive diversification activity during late 1960s and 1970s led to the emergence of the conglomerate form of organization through multiple unrelated acquisitions (Berger & Ofek, 1995). Ravenscraft and Scherer (1987) provided evidence of a trend towards corporate diversification in the American industrial landscape over the period 1950-1970. The contention of existence of conglomerates during this period was substantiated by Jensen (1989) who claimed that the diversified firms thrived due to high costs associated with corporate control transactions. Numerous period-based empirical studies also predicted superior performance of conglomerates before 1980s (e.g., Williamson, 1975; Morck, *et al*., 1990; Servaes, 1996; Hubbard & Palia, 1999; Klein, 2001).

Post the 1980, the external markets became largely efficient, hence reducing the information asymmetries between the firm and its potential investors and stakeholders (Bhide, 1990). The disadvantages of diversification outweighed its advantages, and as a result, the diversified enterprises dwindled, reflecting a strategy of specialization. In the 1980s, the largest and highly diversified U.S. firms have been replaced by less diversified and focused firms primarily as a response to the changing competitive forces in the U.S. economy which endorsed corporate de-diversification.
Uncontested empirical support for corporate de-diversification and return to specialization during and post 1980s has been acknowledged in various studies (e.g., Comment & Jarrell, 1992; Lichtenberg, 1992; Liebeskind & Opler, 1993), which associate high market values, profitability, and industrial productivity with the focused firms. This marked the reversal of various theoretical justifications advanced in favor of corporate diversification, such as operational economies of scope, managerial economies of scale, and financial synergies (Comment & Jarrell, 1995). Moreover, the wealth effects of diversification diminish if the input factor, which is excess in capacity and induces diversification, is perfectly marketable (Teece, 1982). Meyer et al. (1992) argued that a failing business can survive through cross-subsidization by being a part of a diversified firm, which otherwise would have shut down. This leads to lower valuations of the diversified firm as a whole. Lamont and Polk (2002) described this phenomenon as ‘inefficient internal capital market hypothesis’ (alternatively referred to as ‘cross-subsidization hypothesis’), i.e., inefficient capital investment across different parts leading to unnecessary spending on bad (unprofitable) segments and insufficient investment on good (profitable) segments, and also rendered empirical support to this hypothesis.

The existence of significant diversification discount in the advanced economies indicates that the diversified firms in such economies have not been able to exploit the potential advantages associated with corporate diversification while controlling the costs. The notable benefits arising from corporate diversification include managerial economies of scale (Chandler, 1977), economies of scope (Teece, 1980), improved capital allocation (Williamson, 1975; Stein, 1997; Rudolph & Schwetzler, 2013), tax benefits due to increased debt-carrying capacity (Lewellen, 1971), and exploitation of firm-specific assets in other markets (Wernerfelt & Montgomery, 1988; Bodnar et al., 1997). Whereas, the costs associated with corporate diversification are agency problems (Jensen, 1986; Stulz, 1990; Meyer et al., 1992; Denis et al., 1997), inefficient capital allocation among the divisions, and power struggles between the divisions (Rajan et al., 2000).

**Round 2: Diversification does not destroy corporate value**

The negative valuation impact of diversification as documented in the preceding round of literature has been challenged by a number of researchers. Several studies
(e.g., Campa & Kedia, 2002; Lamont & Polk, 2002; Villalonga, 2004) attributed the existence of diversification discount to the fundamental endogenous factors that proxy for diversification (Ekkayokkaya & Paudyal, 2015). Campa and Kedia (2002) established that the relationship between corporate diversification and firm value is not causal, rather firms chose to diversify as a response to various exogenous and endogenous factors that have a bearing on the firm value and the documented discount. By employing the methodology of Berger and Ofek (1995), Campa and Kedia (2002) at the onset identified 10-11 percent diversification discount in their sample from 1978 to 1996, but such documented discount dropped and at times turned into premium when the endogeneity of the diversification decision was controlled for. While analyzing the diversification’s effect on firm value, the authors controlled for various industry-specific and firm-specific characteristics that cause the firms to diversify and they came out with a strong negative correlation between a firm’s choice to diversify and its value. Their findings suggested that a firm’s diversification strategy is related to the changes in the industry composition and growth prospects. They furthered that the high agency costs\(^{36}\) may also exaggerate the value destruction arising from corporate diversification. Denis et al. (1997) also rendered empirical support for this reasoning. Therefore, this evidence is indicative of the fact that corporate diversification can be a value-enhancing strategy for the firms that pursue it efficiently. Lamont and Polk (2002) tested the relationship of change in excess value with the exogenous and endogenous changes in diversity of firm’s investment opportunities.\(^{37}\) Both the exogenous and endogenous increases in diversity were found to have negative effect on the excess value. Following suit, Villalonga (2004) also examined the value differences between diversified and single-segment firms after controlling for the endogeneity of diversification. In order to pursue the same, the author employed three treatment effects estimators and none of these techniques confirmed that corporate diversification destroys firm value.

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\(^{36}\) There are agency costs associated with the diversified firms. For instance, a manager for the sake of his personal benefits is likely to undertake value-destroying diversification which is at conflict with the objective of shareholder value maximization. As a result, such a firm will have lower values than the comparable firms in its industry (Campa & Kedia, 2002).

\(^{37}\) The exogenous change in diversity of firm’s investment opportunities is assumed to be caused only by changes in industry characteristics, and the endogenous change in diversity is assumed to be caused only by changes in corporate structure including number of segments and their SIC code (Lamont & Polk, 2002).
The research also shows that the value loss accruing from diversification may not be attributable to diversification per se, but the propensity of the diversified firms to remain concentrated in the industries with fewer growth opportunities (Lang & Stulz, 1994). Lang and Stulz (1994) rendered evidence (although weak) that the diversifying firms were the poor performers even before diversification, that diversify in search of growth opportunities which have exhausted in their existing activities, hence wrongly attributing the discount (or value loss) intrinsically to the diversification. Weston and Mansinghka (1971) and Matsusaka (2001) labeled this exercise as ‘defensive diversification.’

Graham et al. (2002), by analyzing two sets of diversifying firms, also tested if the act of corporate diversification destroys firm value or not. They found a positive market reaction to the acquisition announcements for both the acquirer and target with an average combined return of 3 percent. The acquiring firms were priced at an average discount of about 7 percent over the two year period surrounding the acquisition event. Authors held that such reduction in the excess values of the diversifying firms (or the combined firms) is owing to the acquisition of already discounted business units and not due to the fact that corporate diversification destroys firm value. The target units were found to be trading at a discount of 10 percent in the year immediately preceding the acquisition. Additionally, their study did not found any decline in the excess values for the sample of firms that increased their number of segments on account of internal expansion or pure reporting changes. Hence, the act of corporate diversification is not entirely responsible for the discount observed in conglomerates, rather valuation discount is linked to the characteristics of the acquired firms. Furthermore, failure to account for the selection biases, i.e., the differences between divisions of conglomerates and typical stand-alone firms (to which they are benchmarked), result in drawing incorrect inferences regarding the valuation impacts of corporate diversification and might overstate the magnitude of diversification discount.

Similarly, Lins and Servaes (2002) also concluded that although the diversified firms trade at a discount of approximately 7 per cent compared to single-

38 ‘Defensive diversification’ is a practice in which the managers, for the sake of their personal interests, diversify into new products or industries in order to ensure the survival of their loss-making enterprise (Matsusaka, 2001).
39 Graham et al. (2002) analyzed two sample sets of diversifying firms separately. First set consists of the firms that expand via mergers and acquisitions (M&A), and the second set involves firms that increased their reported number of business segments.
segment firms in seven emerging markets but they attributed the existence of such diversification discount to lower profitability of diversified firms. Marinelli (2011) also stated that the relationship between corporate diversification and firm performance (or value) is not causal but attributable to certain other factors (for which diversification acts as proxy). By considering both the accounting and market measures of firm performance, he concluded that the persistence of abnormal returns has greater explanatory power in explaining the relationship between and firm performance than the relatedness among business units and the degree of efficiency of the internal capital market. Therefore, the findings from the above mentioned studies imply that the corporate diversification is negatively correlated with firm value not only due to the fact that diversification destroys value but also because of the endogenous diversifying behaviour of firms, poor performance of diversifying firms prior to expansion and selection biases.

The international differences in the corporate governance also influence the impact of diversification on value (Lins & Servaes, 1999). Lins and Servaes (1999), while testing the existence of diversification discount across the German exchange-listed firms, did not find any evidence that corporate diversification reduces shareholder value. They rather found the extent of insider ownership as an important determinant of the valuation effect of diversification. Similarly, Lins and Servaes (2002) found that the diversification discount in companies across seven Asian emerging markets is attributable to managerial ownership concentration between 10 to 30 percent, wherein managerial entrenchment is expected to be highest. Hoechle et al. (2012) also observed that the diversification discount is partly explained by the poor corporate governance in diversified firms. Jafarinejad et al. (2015) were also of the view that although industrial diversification destroys firm value, the proportion and stability of institutional shareholding significantly influences the excess values of diversified firms.

While examining the valuation impacts of diversification, Mansi and Reeb (2002) empirically proved that the diversification discount documented in the previous literature and in their own sample of firms stems from high leverage levels possessed by diversified organizations. Consistent with the risk-reduction hypothesis

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40 The author defined persistence of abnormal returns as a statistically significant above- or below-average performance relative to a reference set (such as an industry) that persists over the long term.
of diversification and contingent claims framework, corporate diversification lowers firm risk and enhances (decreases) bondholder (shareholder) value. The extent of shareholder value reduction (or diversification discount), however, depends upon the degree of leverage. The authors did not observe any diversification discount in their all-equity sample of firms. Ammann et al. (2012) reinforced their findings. Hence these findings leads to the conclusion that debt is an important determinant in understanding of the diversification’s impact on firm value.

The value of diversification can also be biased due to the ‘measurement error’ in the key variables that may lead to under-valuation of diversified firms relative to non-diversified firms. The excess value approach to corporate valuation pioneered by Berger and Ofek (1995) is the standard methodology employed to assess the relative value of diversified firms vis-à-vis focused firms. Mansi and Reeb (2002) along with Glaser and Müller (2010) and Rudolph and Schwetzler (2014), with the help of empirical analysis, claimed that the use of traditional excess value methodology (which is based on firm values, i.e., market value of equity plus book value of debt) tend to over-estimate the diversification discount and an adjustment of such bias in the excess value model resulted in a weak evidence of diversification discount.

The recent studies (e.g., Andrés et al., 2014; Farooqi et al., 2014; Andreou et al., 2016), however, present different views on diversification-value linkage. While analyzing the impact of growth opportunities upon diversification-value relationship for U.S. companies from 1998 to 2010, Andrés et al. (2014) proposed a U-form relationship between diversification and value and confirmed that such relationship is partially explained by firm’s growth opportunities. This view was also endorsed by Stowe and Xing (2006). The lower valuations of industrially diversified firms and the

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41 Corporate diversification reduces firm risk through imperfect correlation of the cash flows or earnings among multiple lines of businesses (Amihud & Lev, 1981; Gomes & Livdan, 2004). Reduced firm risk is reflected in lower default premium and increased bondholder value. In addition, according to the contingent claims framework, equity is a call option on the value of the firm, which is exercised in the states where the value of assets is greater than the value of debt claim. Lowering the firm risk through diversification reduces the value of call option and thereby increases (decreases) bondholder (shareholder) value (Mansi & Reeb, 2002).

42 Glaser and Müller (2010) substituted the book value of debt with an estimate of market value of debt in excess value calculations. Rudolph (2014) calculated the excess value measure by employing two modifications. First, in order to address the difference in cash holdings between diversified and standalone firms, the excess value was computed on the basis of enterprise value (rather than firm value), considering net debt instead of total debt. Second, standalone industry multipliers were aggregated using geometric mean instead of median.
accompanying diversification discount are also explained by the extent of real activities manipulation. According to Farooqi et al. (2014), real earnings management being inversely related to firm value, has an effect on the earnings management increases, the diversification discount also increases. While examining the valuation effects of corporate diversification, Andreou et al. (2016) held that the organizational learning\textsuperscript{43} and the mode of diversification (internal growth vs. acquisitions) are important determinants of diversification performance. Consistent with the viewpoint of organizational learning, specialized firms that diversify once exhibit value reduction, whereas the specialized or multi-segment firms that diversify multiple times exhibit value creation.

**Round 3: Diversification creates corporate value**

Emerging economies are characterized by inadequate or immature intermediary institutions, such as incompetent product and labour markets, inefficient capital markets, weak legal enforcement and investor protection. Such market imperfections create problems of information asymmetries and restricted competition. In such countries with costly external capital markets coupled with weak judicial system and investor protection, it makes sense for the companies to redeploy their excess capital to diversify into related and unrelated business avenues (Berg, 2016). Through diversification, the companies internalize the market institutions deficient in such economies, which result in superior performance and higher valuations for the diversified organizations \textit{vis-à-vis} specialized firms. In view of such argument, despite the increasing refocusing trend among the western economies, the large Asian corporations continued to remain highly diversified. Although there exists strong empirical evidence documenting the diversification discount, the surge in the stock prices with the announcement of diversification programs reflects the investors’ optimism regarding diversification value (Matsusaka, 1993; Hubbard & Palia, 1999).

Chaudhuri et al. (1982) found a rapid rate of diversification among Indian public and private firms from 1960 to 1975, indicating a possibility that diversification could be beneficial in emerging markets like India. Following them, Khanna and Palepu (1997) held an assertion that widely diversified business groups in

\textsuperscript{43}Organizational learning is achieved through repetitive and accumulative experiences (Andreou et al., 2016).
emerging economies, such as India, have the potential to create value. Later in their empirical research examining the performance differences between the affiliates of diversified Indian business groups and the unaffiliated firms, Khanna and Palepu (2000) statistically confirmed that unlike the segments of diversified firms in advanced countries (like the U.S.), the affiliates of the highly diversified business groups in India outperform the unaffiliated firms. Using Tobin’s $q$ and return on assets (ROA) as market and accounting measures of performance respectively, they found that increases in group diversification beyond a threshold level leads to significant improvements in the performance of group affiliates, suggesting a quadratic relationship between group diversification and firm performance. Their analysis of industry-adjusted performance measures also failed to provide any evidence of ‘group discount’ and most of the diversified business groups seemed to outperform the comparable portfolios of focused firms.

A stream of Indian studies in the past have documented valuation and performance benefits for diversified firms (or groups). To this effect, Pandya and Rao (1998) advocated that the group of diversified firms displayed higher risk-adjusted performance over undiversified firms, both with the accounting- as well as market-based return measures. Similarly, Khanna and Rivkin (2001) examined the effects of group affiliation on financial performance for 14 emerging economies and found that unlike developed economies, the group affiliates in emerging economies enjoyed higher profitability than unaffiliated firms in six out of 14 countries, including India, and lower profitability in three countries, with no significant difference in rest of the countries. Ghatak and Kali (2000) and Martin and Sayrak (2003) in their surveys also presented economic justifications in favour of corporate diversification across emerging economies.

Matsusaka (2001) conceived a dynamic model of diversification which portrays diversification as a value-maximizing strategy that revolves around the idea

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44 The industry-adjusted Tobin’s $q$ (or ROA) was calculated as the group Tobin’s $q$ (ROA) minus weighted average of industry Tobin’s $q$ (ROA), where industries have been matched to that of the group, and the weights being the ratio of the group firm’s assets in that industry to the total group assets (Khanna & Palepu, 2000).

45 Khanna and Rivkin (2001) conducted cross-country analysis for 14 emerging economies, namely, Argentina, Brazil, Chile, India, Indonesia, Israel, Mexico, Peru, the Philippines, South Africa, South Korea, Taiwan, Thailand, and Turkey.
of organizational capabilities.\textsuperscript{46} Diversification can be fundamentally viewed as an ongoing search or matching process in which the productive organizational capabilities are deployed in another product or industry, with a purpose of finding an appropriate match for its resources. According to their model, the large number of divestitures (especially in the advanced countries) does not depict the failure of corporate diversification as a growth strategy, rather it indicates failed experiments.

Relatively recent studies too reinforced the past evidence. For instance, Mishra and Akbar (2007) cross-validated the theoretical perspectives (transaction cost economics and resource-based view) and the prior empirical research reflecting the benefits of corporate diversification in India. By building on the regression model with dependent variable Tobin’s $q$ as a measure of firm value and independent variable diversification dummy along with firm-specific performance controls (which are expected to influence the firm value, i.e., firm size, leverage, and profitability), they documented higher values for diversified business groups in comparison to standalone focused firms. Complementing them, George and Kabir (2012) assigned higher firm performance to the firms affiliated to larger and more diverse business groups. By analyzing more than 1,100 diversified and focused companies, Beckmann \textit{et al.} (2012) also reported a significant decline in the diversification discount in the Western Europe and North America from 2005 to 2009, hence confirming that the diversified firms perform better than the focused firms, particularly in the times of financial crisis. The conglomerate premium in the economies of Asia-pacific over a 12-year period from 1998 through 2009 reflected a growing confidence in the diversified organizations.

On the basis of an extensive review of the empirical research examining diversification-performance relationship in developed and emerging markets and synthesis of three broad perspectives backing the relationship, namely, the external perspective, the internal perspective, and the finance perspective, Purkayastha \textit{et al.} (2012) held that widely diversified business groups are the dominant organizational structure for the profitable conduct of business operations in emerging economies. They however observed that the diversity in corporate diversification-performance

\textsuperscript{46} The organizational capabilities are the valuable and productive firm-specific assets or resources (including the physical facilities and the abilities and skills of top and middle level management) that are transferable across industries and products (Matsusaka, 2001).
relationship across studies done in developed and emerging market contexts is attributable to theoretical and methodological reasons. In another emerging market study by Lee et al. (2012), panel data analysis of 267 listed firms in Malaysia over 2001 to 2009 revealed that the industrial diversification enhances firm value.47

Belfiore (2015) by the way of theoretical as well as empirical analysis confirmed that the diversified business group structure is profitable in the context of emerging markets, such as India. Mazur and Zhang (2015) in their research studying the long-term trend in the excess values of diversified firms from 1976 to 2013 advocated that the average diversification discount declined and the capital allocation efficiency of diversified organizations escalated during the period. Berg (2016), in his doctoral research work, investigated the impact of corporate diversification on accounting and market performance in India during the period from 2006 to 2012. In an attempt to test whether the Indian diversified firms have superior performance relative to non-diversified firms, Berg (2016) regressed firm performance (i.e., ROA and Tobin’s q) on diversification dummy while controlling for size, profitability, cash-to-sales, investment intensity, and leverage. Their analysis revealed superior performance (both accounting and market) of diversified firms over non-diversified firms. Additionally, while studying the impact of global financial crisis of 2007-09 on the Indian firms’ performance, they found that the accounting as well as market performance of both the diversifiers and non-diversifiers declined during the periods of crisis, although there was no evidence of superior performance of diversified firms relative to non-diversified firms during the crisis. While, a range of studies (e.g., Kuppuswamy & Villalonga, 2010; Rudolph & Schwetzler, 2013; Volkov & Smith, 2015) showcased an increase in the intrinsic value of diversification during the periods of financial crisis.48 The recent studies by Borda et al. (2017) and Gyan et al. (2017) also evidenced that industrial (or product) diversification contributes in performance improvement in the emerging economies, consistent with the ‘transaction costs economics’ and ‘internal market efficiency hypothesis.’

47 The authors employed excess value (as proposed by Berger & Ofek, 1995) as dependent variable, and dummy for industrial diversification as independent variable. The diversification-value relationship was controlled for various other determinants of value, viz., firm’s size, profitability, growth opportunities, and leverage.

48 Kuppuswamy and Villalonga (2010) additionally propounded that such an increase in the value of diversification during the crisis reflects real difference in the corporate finance and investment, which is expected to persist even post the recessionary period.
Ramaswamy et al. (2017) observed the diversification responses of Indian business groups and the consequences of such diversification moves on the group performance during the period of institutional transition (1988-2012). Drawing upon the ‘institutional theory’ and ‘organizational theory’, the overall results from their longitudinal study reported a positive impact of group diversification on performance (or value).

Hence, from the international evidence on the diversification’s impact on the firm value or shareholder wealth, it can be inferred that the valuation effect of corporate diversification is different across countries and is contingent upon the cross-country differences in the corporate governance, competitive forces, and institutional structures. A detailed summary of relevant studies related to diversification and corporate value have been presented in Table 3.1. Drawing on the combination of theoretical perspectives and past empirical evidence, the following hypothesis in alternate form would be tested:

\[ H_2: \text{Diversified business groups have significantly higher corporate value than unaffiliated standalone companies.} \]

### 3.2.3 Diversification Strategy and Corporate Value

The nature of the competencies possessed by organizations, the rationale for diversification, and the economic maturity (i.e., advanced vs. emerging economies) are the primary factors that decide the type of diversification strategy (viz., related or unrelated) pursued by business organizations (Montgomery & Wernerfelt, 1988; Hill & Jones, 2006; Purkayastha et al., 2012). As a conventional view, the private sector firms are likely to diversify into unrelated business avenues while the public sector firms show tendency towards related diversification (Chaudhuri et al., 1982). Generally, the firms possessing excess physical capacity and abundant intangible assets (mostly knowledge-based resources) are likely to move into related business avenues, whereas the availability of excess internal financial resources (including unused debt capacity) leads to unrelated diversification (Chatterjee & Wernerfelt, 1991). The literature review regarding the relationship between diversification strategy and corporate value has been discussed in two rounds, each favouring a particular diversification strategy.
Table 3.1: Summary of the Major Studies on Diversification and Corporate Value

<table>
<thead>
<tr>
<th>Name of the Author(s) and Year of Study</th>
<th>Objective(s)</th>
<th>Sample Firms and Period of Study</th>
<th>Major Variables</th>
<th>Tools Used</th>
<th>Findings of the Study</th>
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<tbody>
<tr>
<td>Lang and Stulz (1994)</td>
<td>To investigate the relationship between the degree of diversification and firm’s market value proxied by Tobin’s $q$.</td>
<td>18,255 firm-year observations Period: 1978-1990</td>
<td>Tobin’s $q$, industry-adjusted Tobin’s $q$, Diversification, size, R&amp;D intensity, ability to access financial markets</td>
<td>Descriptive statistics, correlation analysis, nonparametric sign test, cross-sectional regression analysis, multivariate regression analysis</td>
<td>The study concluded significantly lower Tobin’s $q$ ratios for diversified firms relative to single-segment firms. The results remain unchanged when industry-adjusted $q$ and firm-specific controls are taken into consideration.</td>
</tr>
<tr>
<td>Berger and Ofek (1995)</td>
<td>To estimate the effect of diversification on firm value. To empirically explore the sources of value gains or losses from diversification.</td>
<td>3,659 firms with 16,181 observations Period: 1986-1991</td>
<td>Excess value, Diversification, size, profitability, growth opportunities, Overinvestment, negative cash flow indicator</td>
<td>Descriptive statistics, nonparametric median test, Wilcoxon signed-rank test, pooled regression analysis</td>
<td>The results documented negative relationship between diversification and firm value. The findings revealed value loss from diversification ranging from 13-15%. The authors associated the lower values of diversified firms vis-à-vis standalone companies with the tendency of such firms to indulge in overinvestment and cross-subsidization.</td>
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<tr>
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<tbody>
<tr>
<td>Comment and Jarrell (1995)</td>
<td>To study an association between the change in focus and same-year and prior-year stock returns.</td>
<td>NYSE- and ASE-listed firms Period: 1978-1989</td>
<td>Stock return (same-year and prior-year)</td>
<td>Change in focus, change in total revenue, change in total assets, change in earnings, dummy for acquisitions and divestitures</td>
<td>T-test, multivariate, pooled, time-series cross sectional regression analysis</td>
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<td>Lins and Servaes (1999)</td>
<td>To examine the valuation effects of diversification in Germany, Japan and the United Kingdom. To explore if the diversification discount is related with the degree of</td>
<td>174, 808 and 391 publicly-traded firms in Germany, Japan and U.K. for 1992; 227, 778 and 341 publicly-traded firms in Germany, Japan and U.K. for 1994.</td>
<td>Excess value (based on market-to-sales ratios)</td>
<td>Diversification, firm size, profitability, growth opportunities</td>
<td>Descriptive statistics, cross-sectional regression analysis</td>
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<td>Khanna and Palepu (2000)</td>
<td>To compare the accounting and market performance of affiliates of diversified Indian business groups with that of unaffiliated firms. Besides, the possible sources of costs and benefits of group affiliation have been explored.</td>
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<td>The firms affiliated to highly diversified Indian business groups were found to have higher firm performance than the unaffiliated focused firms, hence demonstrating a quadratic relationship between degree of group diversification and accounting as well market performance.</td>
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<td>Khanna and Rivkin (2001)</td>
<td>To assess the effect of group affiliation on firm profitability across 14 emerging markets.</td>
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<td>The findings statistically confirmed that the group affiliation is an important determinant of firm performance in emerging economies. In 6 out of 14 countries, the business group affiliates enjoyed higher profitability than the unaffiliated focused firms.</td>
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<th>Findings of the Study</th>
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<tbody>
<tr>
<td>Campa and Kedia (2002)</td>
<td>To evaluate the effect of corporate diversification on firm value while controlling for the firm-specific (or endogenous) characteristics that have a bearing on the firm’s decision to diversify.</td>
<td>8,815 firms with 58,965 firm-year observations. Period: 1978-1996</td>
<td>Excess value</td>
<td>Diversification, firm size, profitability, investment, listing on stock exchange, leverage, industry attractiveness, number of M&amp;A announcements, GDP rate</td>
<td>Panel data regression analysis, summary statistics, probit regression</td>
</tr>
<tr>
<td>Graham, Lemmon and Wolf (2002)</td>
<td>To investigate if the act of corporate diversification destroys firm value or not.</td>
<td>356 acquisitions Period: 1980-1995</td>
<td>Excess value (based on sales and assets)</td>
<td>Diversification (M&amp;A and increase in number of reported segments)</td>
<td>Event study methodology, summary statistics, robust-cluster standard errors, Wilcoxon sign-rank test, regression analysis</td>
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<tbody>
<tr>
<td>Lamont and Polk (2002)</td>
<td>To test the correlation and causation between the changes in firm value and endogenous and exogenous changes in diversity.</td>
<td>1,987 diversified firms with 11,974 firm-year observations Period: 1979-1997</td>
<td>Change in excess value (based on market-to-book ratio) Change (exogenous and endogenous) in diversity in industry investment</td>
<td>Summary statistics, correlation, pooled OLS regression, Fama-Macbeth estimation</td>
<td>The results evidenced that diversification destroys firm value. Such destruction in value is attributable to the exogenous increases in the diversity of firm’s investment opportunities and firm’s endogenous diversifying behaviour.</td>
</tr>
<tr>
<td>Mansi and Reeb (2002)</td>
<td>To examine the effect of diversification on firm value and to look into the role of firm leverage in assessing the nature of the relationship.</td>
<td>2,856 firms with 18,898 firm-year observations Period: 1998-1999</td>
<td>Excess value (based on market-to-sales ratio) Diversification, firm size, income-to-sales, capital spending-to-sales, leverage</td>
<td>Descriptive statistics, correlation analysis, multiple regression analysis</td>
<td>The authors observed an average diversification discount of 12% the magnitude of which depends upon the degree of leverage. The corporate diversification, by lowering shareholder value and increasing bondholder value, has insignificant impact on the total firm value.</td>
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<td>Name of the Author(s) and Year of Study</td>
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<td>Villalonga (2004)</td>
<td>To assess if the corporate diversification creates or destroys firm value after taking the endogeneity of diversification into account.</td>
<td>8,937 firms with 60,930 firm-year observations Period: 1978-1997</td>
<td>Excess value (based on assets, sales, and industry-adjusted Tobin’s q)</td>
<td>Firm, industry, and macroeconomic characteristics</td>
<td>At the onset, the preliminary analysis (cross-sectional and longitudinal) revealed median diversification discount of 10-11%. The main findings after controlling for the endogeneity disapproved the presence of diversification discount.</td>
</tr>
<tr>
<td>Mishra and Akbar (2007)</td>
<td>To examine the impact of diversification and its direction (related or unrelated) on the group’s value in the Indian context.</td>
<td>1,552 firms Period: 2005</td>
<td>Tobin’s q</td>
<td>Diversification dummy, firm size, leverage, excess leverage, excess profitability</td>
<td>Summary statistics, step-wise cross-sectional regression model</td>
</tr>
</tbody>
</table>
| Marinelli (2011)                       | To study the relationship between corporate diversification and firm performance while controlling for the persistence of abnormal returns. | 317 diversified firms Period: 1999-2006                                                           | Outstanding performance in the period $t$                                      | Outstanding performance in the period $t-1$                              | Descriptive statistics, autoregressive model, Hausman test, Markov conditional probability, simple                                            | The association between diversification and performance has been explained by the persistence of outstanding performance. Highly diversified firms (i.e., those belonging to the top}
<table>
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<tr>
<th>Name of the Author(s) and Year of Study</th>
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<th>Findings of the Study</th>
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<tbody>
<tr>
<td>Berg (2016)</td>
<td>To gauge the impact of corporate diversification on the accounting and market measure of firm performance in India.</td>
<td>1,061 firms with 7,427 firm-year observations Period: 2006-2012</td>
<td>Tobin’s $q$, return on assets, Diversification, crisis, size, profitability, cash-to-sales ratio, capital expenses-to-sales ratio, leverage</td>
<td>Regression</td>
<td>Consistent with the institution-based view of diversification, the study findings depicted superior performance of diversified firms in comparison to non-diversified firms. However, such valuation benefits are not available to diversified firms during the times of financial crisis.</td>
</tr>
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</table>

Source: Researcher’s own compilation
According to a widely-held belief in strategic management, the diversification strategy is supposed to have inverted-U shaped curvilinear relationship with the performance or corporate value, consistent with the resource-based perspective (Palich et al., 2000). A move from single business to related diversification strategy has favourable synergistic effects on the value or performance, whereas a negative value (or performance) effect occurs as firms move from related to unrelated diversification strategy, in which the costs of diversification overpower the benefits of synergy (as evident from Figure 2.4 in the previous chapter).

A stream of empirical studies (e.g., Bettis, 1981; Rumelt, 1982; Paul, 1986; Nayyar, 1993; Berger & Ofek, 1995; Kakani, 2000; Mishra & Akbar, 2007; Purkayastha, 2013; Ramaswamy et al., 2017) provide evidence that related diversified firms perform better and are valued highly than the fully unrelated diversified firms. Rumelt (1977 and 1982), by conceiving a categorical measure of diversification, confirmed that the valuation impact of diversification is more favourable for the firms following related than unrelated diversification strategy, primarily due to industry effect. Based on Rumelt’s classification of diversification strategies and his explanations for related diversification and considering ROA as measure of performance, Bettis (1981) also arrived at similar findings while attributing such performance benefits to high research and development expenses incurred by related diversified firms (in order to develop difficult-to-replicate competence and to create defensible product-market positions). Similarly, based on the study of 28 diversified companies, Paul (1986) indicated that the diversified companies pursuing fully unrelated diversification strategy showcased the poorest performance among the four diversification strategies across all the 11 measures of financial performance (that captured the four dimensions of growth, profitability, risk, and market value), hence suggesting the superiority of related over unrelated diversification strategy. Nayyar (1993) also argued that the benefits from economies of scale and scope are available through the exploitation of firm-specific distinctive resources into related businesses.

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49 The ‘industry effect’ states that the related diversified firms tend to participate in the highly profitable industries, which enable them to develop, nurture, and transfer unusually productive core factors (Rumelt, 1982).

50 Rumelt (1977) conjectured that the related diversified firms tend to participate in the industries characterized by extensible core skill and ample opportunities for differentiation and segmentation.
In order to assess if the value loss arising from diversification varies across related and unrelated diversification strategies, Berger and Ofek (1995) regressed excess value on the number of segments and related segments, while controlling for the firm-specific variables. Their results indicated that the diversified firms lose more value as they become more diversified, however, the relatedness between the segments was able to moderate the diversification discount to some extent. Mishra and Akbar (2007) also found similar results and confirmed that the benefits of group affiliation are available more to the related diversified groups than unrelated diversified groups. Purkayastha (2013) argued that the superiority of a particular diversification strategy is contingent upon the industry to which the group affiliated companies belong.\textsuperscript{51} Due to marked differences in the maturity level of industries in emerging economies, the author captured intra-industry variation in the diversification-performance relationship. By testing the relationship for top 100 business groups across three industries at different stages of their life cycle, that is, chemical and allied products, electronics and other electrical equipment, and transportation equipment, during three time periods (i.e., 1997-98 to 1999-00, 2000-01 to 2002-03, and 2003-04 to 2005-06), they established that the association between the related or unrelated diversification and firm performance is influenced by the industry characteristics. The related diversification strategy brought superior affiliate performance in the chemical and allied products industry. Later, while assessing the impact of institutional transitions on the efficacy of alternative diversification strategies employed by business groups in India, Ramaswamy \textit{et al.} (2017) reported higher performance for groups employing related over unrelated diversification strategies during the times when pro-market institutions\textsuperscript{52} have emerged.

\textit{Round 2: Unrelated diversification produces higher corporate value}

A diversified business group with its affiliates in diverse industries is in a position to influence its stakeholders to its advantage, hence suggesting the potentiality of unrelated diversification strategy. For instance, the large diversified Indian business

\textsuperscript{51} A similar argument was put forth by Bettis and Hall (1982), wherein they conjectured that selection of industries is an important determinant of diversification strategy-performance relationship.

\textsuperscript{52} The pro-market reforms are meant to improve the quality and implementation of regulations, reduce corruption, develop external capital markets, strengthen corporate governance, etc., with an overall objective of reducing the transaction costs and enhancing domestic competition (Borda \textit{et al.}, 2017).
groups have been maintaining ‘industrial embassies’ to coordinate lobbying efforts across its wide-ranging industries (Purkayastha, 2013).

A range of studies documented higher performance for unrelated diversifiers over related diversifiers (e.g., Elgers & Clark, 1980; Michel & Shaked, 1984; Khanna & Rivkin, 2001; Marinelli, 2011; Purkayastha et al., 2012; Purkayastha, 2013). The former studies ascribed greater wealth benefits to the buyer and seller shareholders of conglomerate acquisitions as compared to non-conglomerate mergers and acquisitions (Elgers & Clark, 1980), superior risk-return profiles to unrelated diversification strategies (Michel & Shaked, 1984). Complementing them, Khanna and Rivkin (2001) also suggested the appropriateness of unrelated diversification in the emerging markets.

As a departure from the resource-based view and typical assumption in the strategic management, Marinelli (2011) stated that higher outstanding performance (or abnormal return) is associated with unrelated diversification. Highly diversified firms (i.e., those belonging to the top performance quintile) consistently created shareholder value and had lower market risk. Considering the inconsistencies in the findings regarding value-maximizing diversification strategy, Purkayastha et al. (2012) attempted a synthesis of the related research done in the advanced and emerging economies in order to establish generalization. On comparing and contrasting the past empirical evidence on the association between diversification strategy and performance, the authors advocated the appropriateness of related diversification strategy in developed markets and unrelated diversification strategy in emerging markets. The research motivations that followed from the review led Purkayastha (2013) to assess the role of underlying industry characteristics in explaining the relationship between group’s diversification strategies and its affiliated firm performance in India. The findings depicted varying relationships between diversification and performance for different industries considered in the study. The firm performance was found to be positively associated with unrelated diversification in the transportation equipment industry. In general, Purkayastha (2013) proposed that the groups pursuing unrelated diversification beyond a threshold level would be able to compensate for the huge fixed costs necessary to create internal market mechanisms, thereby proposing a U-shaped relationship between unrelated diversification and firm performance, a concept central to institutional perspective. In
this manner, the unrelated diversified groups can realize the economies of scale and can efficiently deploy the resulting benefits across its affiliates spanning multiple range of industries (Ramaswamy et al., 2017). Also, the benefits arising from internal capital markets are amplified when the group comprises of large number of unrelated businesses, across which the cash flows are smoothed. Hence, the efficiency of internal capital markets increases with the extent of diversification.

It is inappropriate to regard related diversification as a profitable corporate strategy in emerging economies by drawing only upon resource-based perspective, as there exist various institutional voids that companies must manage. In the similar manner, unrelated diversification cannot be viewed as an optimal corporate strategy by emphasizing on institutional and sociological explanations. This is because unrelated diversification can also be value-destroying if it is driven by managers’ personal motives (Purkayastha, 2013). In addition, Khanna and Palepu (1997) along with Ramaswamy et al. (2017) argued that the extent of institutional voids (and the resultant transaction costs) is a factor governing the efficacy of alternative diversification strategies. For instance, the absence of pro-market institutional mechanisms (or, the presence of high transaction costs) typically stimulates corporate diversification into multiple diverse businesses. From the above review of studies, it is not easy to establish the superiority of one diversification strategy over another. The diverse research results may also be the result of subjectivity in the selection of methods of measurement of ‘relatedness’ and ‘performance’, time frame, and the statistical methodologies (Dubofsky & Varadarajan, 1987; Martin & Sayrak, 2003; Marinelli, 2011). Moreover, the relationship between diversification (and its strategy) and corporate value is highly susceptible to Type I statistical errors (Bergh, 1995). One can arrive at contrasting results by using pooled or cross-sectional data over longitudinal data, hence leading to theoretical misinterpretations. A detailed summary of relevant studies related to diversification strategy and corporate value have been presented in Table 3.2. The above review of empirical literature shows that the association between diversification strategy and corporate value is complex and inconclusive. Taken together, the arguments and the existing empirical evidence presented above, the following hypothesis in alternate form would be tested:

**H₃:** There is a significant difference in the corporate values of related and unrelated diversified business groups.
Table 3.2: Summary of the Major Studies on Diversification Strategy and Corporate Value

<table>
<thead>
<tr>
<th>Name of the Author(s) and Year of Study</th>
<th>Objective(s)</th>
<th>Sample Firms and Period of Study</th>
<th>Major Variables</th>
<th>Tools Used</th>
<th>Findings of the Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berger and Ofek (1995)</td>
<td>To examine any differences in values between related and unrelated diversified firms.</td>
<td>5,233 firm-year observations Period: 1986-1991</td>
<td>Excess value</td>
<td>Number of segments, related segments, size, profitability, growth opportunities</td>
<td>Descriptive statistics, nonparametric median test, Wilcoxon signed-rank test, pooled regression analysis. The findings revealed that the diversified firms lose more value as they become more diversified, hence confirming the superiority of related over unrelated diversification strategy.</td>
</tr>
<tr>
<td>Kakani (2000)</td>
<td>To investigate how the product and international diversification strategies influence Indian groups’ financial performance.</td>
<td>240 business groups Period: 1987-1999</td>
<td>Firm performance (measured across 5 dimensions, viz., shareholder value, accounting profitability and its components, growth, and risk)</td>
<td>Product diversification, international diversification, group size, leverage, net exports, age, short-term and long-term solvency position, industry fixed effects, ownership pattern</td>
<td>Multiple regression analysis. High levels of product diversification resulted in lesser profit margins, lower growth rates, and higher risk levels, thus disfavouring unrelated diversification strategies.</td>
</tr>
</tbody>
</table>
| Mishra and Akbar (2007)                | To examine the impact of diversification and its direction (related or unrelated) | 1,552 firms Period: 2005 | Tobin’s q                                                                      | Diversification dummy, firm size, leverage, excess                                                                 | Summary statistics, step-wise cross-sectional. In line with the resource-based view, the related diversified business groups were found to (Continued)
<table>
<thead>
<tr>
<th>Name of the Author(s) and Year of Study</th>
<th>Objective(s)</th>
<th>Sample Firms and Period of Study</th>
<th>Major Variables</th>
<th>Tools Used</th>
<th>Findings of the Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marinelli (2011)</td>
<td>To study the relationship between corporate diversification and firm performance while controlling for the persistence of abnormal returns.</td>
<td>317 diversified firms Period: 1999-2006</td>
<td>Outstanding ROA</td>
<td>Degree of segment relatedness (measured using Herfindahl index, simple count-of-industry, entropy indicators), firm size, leverage</td>
<td>Panel data regression model Business relatedness was found to be negatively related with firm’s outstanding performance. The findings associated higher firm performance with the unrelated diversification strategy.</td>
</tr>
<tr>
<td>Purkayastha (2013)</td>
<td>To assess the role of underlying industry characteristics in explaining the relationship between group’s diversification strategies and its affiliated firm performance.</td>
<td>Firms affiliated to top 100 Indian business groups Period: 1997-98 to 2005-06</td>
<td>Return on assets, return on sales, Tobin’s q</td>
<td>Diversification, firm size, age, working capital ratio, leverage, trade intensity</td>
<td>Descriptive statistics, pooled regression, panel regression The author found an inverse relationship between ROA and unrelated diversification in the chemical and allied products industry, whereas a positive relationship was observed in the transportation equipment industry.</td>
</tr>
</tbody>
</table>

Source: Researcher’s own compilation
3.2.4 Sources of Value Gains or Losses from Diversification

In this section, the plausible sources of costs (i.e., value losses) and benefits (i.e., value gains) of corporate diversification have been explored by reviewing the relevant studies in two rounds, each reflecting a different set of opinions.

Round 1: Sources of Value Losses from Diversification

The corporate diversification literature pertaining to advanced economies largely document diversification discount and ascribed lower performance and firm values to diversified firms in comparison to specialized firms. Berger and Ofek (1995) documented diversification discount of 13-15 percent and statistically confirmed that such value loss arises from overinvestment (in industries with limited investment opportunities) and cross-subsidization of failing segments. The excess discretionary resources (such as unused borrowing power and large free cash flows) coupled with the personal motives of corporate managers causes the organizations to indulge in excessive (or value-decreasing) diversification, hence reflecting suboptimal corporate control and monitoring mechanisms.\(^{53}\) The cross-subsidization allows poorly performing segments to drain resources from profitable segments. Such failing segments manage to survive within a diversified firm which otherwise would have shut down if operated as stand-alone entities, hence generating value losses in conglomerates.\(^{54}\) Thereafter, Comment and Jarrell (1995) attributed the failure of diversified firms to their inability to efficiently exploit the financial economies of scope, such as debt coinsurance and internal capital markets, to their advantage.

On the whole, the literature upholding the ‘institutional perspective’ (e.g., Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Martin & Sayrak, 2003; Kim et al., 2004; Mishra & Akbar, 2007; Purkayastha et al., 2012; Berg, 2016) does not support corporate diversification as an appropriate path for value-creation and value-maximization in the developed economies. The improvements in the efficiency of

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53 The view that overinvestment (or excessive diversification) is being motivated by managers’ growth objectives is formalized by Robin Marris in his economic theory of managerial capitalism. Managers’ growth objectives result in them investing at a greater rate than would be consistent with profit maximization. They continue to trade profit for growth to the point that the valuation of the firm declines to the point where it becomes vulnerable to takeover. A wave of hostile takeovers of large diversified companies both in U.S. and U.K. during 1970-80s provide evidence to the Marris’s growth maximization model (Banerjee, 1999).

54 These sources of value loss, however, do not exist in the Indian setting because of legally independent nature of group affiliates.
external markets for finance, product and labour, coupled with well-functioning intermediary institutions, effective regulation, and strong legal framework do not provide incentives for diversified firms as the internal institutions fail to match the efficiency of external markets and institutions. This results in high costs of operating a diversified organization, hence making corporate diversification a less beneficial strategy in the developed institutional environments (Purkayastha et al., 2012).

Although the literature concerning the developed economies document diversification discount, but a large number of studies amongst them (as mentioned in Round 2 of Sub-section 3.2.2) have ascribed the presence of such discount (or value loss) to numerous other factors, such as endogenous diversifying behaviour of firms, poor performance of diversifying firms, selection biases, high leverage, and measurement error, rather than to diversification activity.

**Round 2: Sources of Value Gains from Diversification**

Corporate diversification is expected to be a valuable growth strategy, particularly in emerging economies, and such value gains may arise from numerous sources. According to Berger and Ofek (1995), the value gains may accrue from increased interest tax shields resulting from high leverage of diversified organizations. Moreover, diversification leads to reduced tax payments for the organization as a whole as the losses of some segments can be offset against the profits of remaining segments.

Khanna and Palepu (2000) extended evidence regarding the potential sources of gains and losses from diversification in India. They regarded privileged access to foreign capital and foreign technology, monitoring by concentrated owners, and access to internal capital markets as the three important factors governing the performance of diversified groups in India. First, the diversified groups in India are able to harness their established reputation and political connections for efficient, smooth, and profitable conduct of their businesses. These also facilitate diversified groups to attract foreign capital investment and foreign technology into their enterprises. The affiliates of diversified groups were found to be the dominant GDR issuers relative to the unaffiliated companies; hence, implying superior access of

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55 Lewellen (1971) argued that combining businesses with imperfectly correlated earnings stream (described as ‘coinsurance effect’) leads to increase in the debt capacity of diversified firms vis-a-vis specialized firms.
group affiliates to international markets. The international capital providers manifested excessive interest in the diversified groups for investment. In addition, the largest diversified business groups (with more than ten affiliates) were found to be the most involved in technological joint-venture arrangements with foreign partners. Complementing them, George and Kabir (2012) empirically confirmed the role of foreign corporate shareholding in conditioning the relationship between diversification and value. The group companies with foreign corporate shareholdings are bestowed with superior financial, technical and organizational resources. Moreover, such groups undertake disciplined diversification, leading to superior performance (or values) of diversified business groups as a whole.

Second, concentrated ownership offers benefits of efficient monitoring and governance of member firms and their respective managers. This kind of arrangement, analogous to Japanese Keiretsu organizations, is not a source of value creation for Indian diversified groups. Nevertheless, the existence of cross-holdings amongst group affiliates offers benefits of higher performance. Third, although a lot of studies portray the value enhancements pertaining to the internal capital markets created through diversification, but, unlike Japanese groups, such benefits are not available to the diversified business groups in India. This is largely due to the legally independent nature of the group members and the non-existence of a centralized bank. On the contrary, Hill (1988) and Purkayastha (2013) proposed that the functioning and effectiveness of internal capital markets is enhanced if the group affiliated firms competing for resources are autonomous.

Khanna and Rivkin (2001) advocated that the business groups enjoy inexpensive access to product, labour, and capital markets, and their political connections bestow them with opportunities for growth and value (or performance) enhancement. Mishra and Akbar (2007) along with Berg (2016) attributed higher value of group affiliates to the ‘transaction cost economics’ and further held that the diversified groups embody the structure of internal capital markets in the absence of well-developed and integrated external capital markets. Berg (2016) asserted that the increased efficiency of internal capital markets and broader access to external capital

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56 Technological joint-ventures are the business arrangements in which the international partner contributes technology or know-how, and the Indian partner provides market access.
markets leads to ‘more money’ and ‘smarter money’ effect,\textsuperscript{57} which in turn enhances the performance and values of diversified business groups (or their affiliates). Similarly, Purkayastha et al. (2012) and Belfiore (2015) also presented justifications in favour of ‘institutional perspective’ for the higher valuations of diversified business groups in India.

The ‘institutional perspective’ also comes into play while explaining the higher valuations of diversified organizations in times of financial crisis or economic recession. A number of studies investigated the valuation impacts of diversification in credit-constrained environments (e.g., Kuppuswamy & Villalonga, 2010; Rudolph & Schwetzler, 2013; Volkov & Smith, 2015; Berg, 2016) and revealed that the financial crisis cause varied effects on the diversification value (or diversification discount) across different regions and such differences were explained by the degree of a region’s institutional development. The findings of these studies demonstrated an economically and statistically significant improvement (although temporary) in the relative value of diversified organizations (\textit{vis-à-vis} focused companies) during the periods of crisis or recession. More precisely, the countries with well developed capital markets and strong legal infrastructure observed significant reduction in the diversification discount during the crisis years, whereas the crisis has limited impact on the value of diversified organizations in the regions with immature capital markets and legal systems. The improvement in the relative valuation of diversified organizations was largely attributed to the enhanced efficiency of the internal capital markets during the recessionary periods.\textsuperscript{58}

Another potential reason for higher values of diversified groups over standalone companies has been suggested by Lensink et al. (2003), further reinforced by Mishra and Akbar (2007). The authors empirically held that the affiliates of Indian business groups are comparatively lesser sensitive with respect to investment-to-cash flow ratio. Precisely, diversification decreases the financing constraints for the group

\textsuperscript{57} The ‘more money’ effect arises from the synergies resulting from debt coinsurance. The diversified organizations can potentially assume high leverage positions due to lower cash volatility (Lewellen, 1971). Whereas, the ‘smarter money’ effect originates from the increased efficiency of internal capital markets (Berg, 2016). Such effects are more pronounced during the times of financial crisis (Kuppuswamy & Villalonga, 2010).

\textsuperscript{58} During the periods of crisis, the access to external finance is restricted (Dimitrov & Tice, 2006). Thus, during such periods, the diversified firms substitute expensive external finance with comparatively cheaper internal capital and resultantly, gain competitive advantage over the single-segment companies (Berg, 2016).
members, hence suggesting better access to external finance (domestic and international) for diversified business groups over standalone companies.

Martin and Sayrak (2003) advanced that a diversified firm is in a position to utilize same distribution and marketing channels to sell its varied products and services produced by different segments (or affiliates). Similarly, it can employ same corporate and legal personnel to assist its segments (or affiliates) in varied industries. Additionally, Martin and Sayrak (2003), along with Villalonga (2004) endorsed high market power for diversified firms as a potential reason for their higher valuations because the success in one business offers opportunities for success in other businesses too. Moreover, corporate diversification is utilized to take the advantage of reciprocal buying among the segments or affiliates.

George and Kabir (2012) described the large sizes and diversity of business groups as the factors responsible for higher performance of business group affiliates. The large business groups possessing the requisite management skills and sufficient internal processes are in a position to overcome the costs associated with group structures, and consequently generate value for their affiliates (Khanna & Palepu, 2000). In the similar manner, the diverse business groups develop dynamic capabilities across various industries to enhance overall corporate value. Besides this, George and Kabir (2012) held an assertion that ‘affiliation to a group’ pays, and that the diversified business group structure is an appropriate organizational model for reaping the valuation and performance benefits from corporate diversification in emerging economies like India.

3.2.5 Some Methodological Observations

The extant literature reviewed in the previous sections shed light on the underlying methodology employed and substantive findings obtained by pertinent studies to ascertain the broad linkage of diversification with the cost of capital and corporate value. The present section takes account of these observations in order to identify an appropriate research design for meeting present study objectives.

3.2.5.1 Use of Data

Researchers addressing the linkage of corporate diversification with cost of capital and corporate value in the fields of strategic management and corporate finance have obtained the required data from a number of secondary data sources. Typically, the
researchers have made use of corporate databases in order to collect the relevant data for the purposes of their study. For example, Standard & Poor’s Compustat database is the most widely used corporate database by academic researchers and financial professionals worldwide for obtaining key statistical, financial and market information pertaining to the companies throughout the globe. The U.S.-based studies in the domain of corporate diversification, by and large, relied upon variants of the Compustat database for accessing the financial data (e.g., Bettis, 1981; Bettis & Hall, 1982; Rumelt, 1982; Barton, 1988; Lang & Stulz, 1994; Lubatkin & Chatterjee, 1994; Berger & Ofek, 1995; Comment & Jarrell, 1995; Pandya & Rao, 1998; Kakani, 2000; Campa & Kedia, 2002; Graham et al., 2002; Lamont & Polk, 2002; Villalonga, 2004; Olibe et al., 2008; Kuppuswamy & Villalonga, 2010; Marinelli, 2011; Hann et al., 2013; Ekkayokkaya & Paudyal, 2015; Volkov & Smith, 2015).

Likewise, a number of studies have explored the databases like Thomson Reuters Worldscope for obtaining annual financial and accounting data (e.g., Lins & Servaes, 2002; Mansi & Reeb, 2002) coupled with Datastream for retrieving capital market and economic data (e.g., Khanna & Rivkin, 2001; Rudolph & Schwetzler, 2013; Andrés et al., 2014; Rudolph & Schwetzler, 2014; Berg, 2016). Another widely used comprehensive database to access historical stock market data is the Center for Research in Security Prices (CRSP) tapes provided by the University of Chicago Booth School of Business, being employed in a number of western studies (e.g., Elgers & Clark, 1980; Lubatkin & O’Neill, 1987; Lubatkin & Rogers, 1989; Lubatkin & Chatterjee, 1994; Olibe et al., 2008; Ekkayokkaya & Paudyal, 2015; Volkov & Smith, 2015). In conjunction with the above mentioned databases, numerous studies have recourse to varied supplementary data sources, such as Thomson Reuters I/B/E/S estimates and forecasts\(^59\) (e.g., Hann et al., 2013), Securities Data Corporation (SDC) Mergers and Acquisition database and Federal Trade Commission (FTC) large merger series in order to identify the sample of firms undertaking mergers and acquisitions (e.g., Elgers & Clark, 1980; Lubatkin & O’Neill, 1987; Graham et al., 2002; Ekkayokkaya & Paudyal, 2015), indexes published by the International Monetary Fund (IMF) and The Economist magazine to identify the sample of emerging markets (e.g., Lins & Servaes, 2002), Lehman Brothers Fixed Income (LBFI) database for obtaining market values of debt (e.g., Mansi & Reeb, 2002), Superintendencia de

\(^{59}\) I/B/E/S stands for Institutional Brokers’ Estimate System.
Valores y Seguros and Revista Valores for retrieving data for Chile (e.g., Khanna & Rivkin, 2001), Moody’s Industrial Manual (e.g., Michel & Shaked, 1984), U.S. Bureau of Economic Analysis (e.g., Andrés et al., 2014), Bureau van Dijk’s Orbis database for sample identification (e.g., Berg, 2016), Value Line Investment Surveys and Merrill Lynch to obtain data on betas (e.g., Montgomery & Singh, 1984; Barton, 1988; Lubatkin & Chatterjee, 1994), Fortune 500 list of industrial companies (e.g., Rumelt, 1982; Barton, 1988), etc.

With respect to Indian studies, the corporate database of Centre for Monitoring Indian Economy (CMIE) namely Prowess serves the information requirements of academia and industry. The database incorporates financial, accounting and market data relating to Indian listed and unlisted companies, available at annual, semi-annual, quarterly and monthly intervals. The Prowess database has been used by fairly large number of Indian studies examining the valuation impact of corporate diversification (e.g., Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Mishra & Akbar, 2007; Purkayastha, 2013). Capitaline is another data repository for Indian companies accessed by few authors (e.g., George & Kabir, 2012). Some researchers have also hand collected the financial information required from the published annual reports of the companies, financial newspapers, government reports, along with the corporate websites and professional web sources, such as Bombay Stock Exchange Directory and Security and Exchange Commission 10-K reports (e.g., Chaudhuri, 1982; Michel & Shaked, 1984; Paul, 1986; Barton, 1988; Kakani, 2000).

For analyzing the impact of diversification on the cost of capital and corporate value, the standard industry-multiplier approach has been employed by majority of the studies in order to compute excess value or excess cost of capital measure as a dependent variable (e.g., Berger & Ofek, 1995; Lins & Servaes, 1999; Campa & Kedia, 2002; Denis et al., 2002; Graham et al., 2002; Lamont & Polk, 2002; Lins & Servaes, 2002; Mansi & Reeb, 2002; Villalonga, 2004; Kuppuswamy & Villalonga, 2010; Lee et al., 2012; Hann et al., 2013; Rudolph & Schwetzler, 2013; Andrés et al., 2014; Rudolph & Schwetzler, 2014; Volkov & Smith, 2015). Other than excess value methodology, a number of accounting- and market-based measures of performance (or value) have been considered by various authors (e.g., Lang & Stulz, 1994; Comment & Jarrell, 1995; Pandya & Rao, 1998; Kakani, 2000; Khanna & Palepu,
2000; Khanna & Rivkin, 2001; Mishra & Akbar, 2007; Marinelli, 2011; Purkayastha, 2013; Berg, 2016), either in isolation or in conjunction.

With regards to the independent variables, there is considerable heterogeneity in the proxies for diversification and diversification strategy (or relatedness). Fairly large number of authors have measured diversification as an indicator or dummy variable (e.g., Berger & Ofek, 1995; Campa & Kedia, 2002; Lins & Servaes, 2002; Mishra & Akbar, 2007; Kuppuswamy & Villalonga, 2010; Lee et al., 2012; Rudolph & Schwetzler, 2013; Rudolph & Schwetzler, 2014), Herfindahl index based on sales or assets (e.g., Lang & Stulz, 1994; Berger & Ofek, 1995; Comment & Jarrell, 1995; Denis et al., 1997; Khanna & Palepu, 2000; Rajan et al., 2000; Denis et al., 2002; George & Kabir, 2012; Andrés et al., 2014), number of segments (e.g., Lang & Stulz, 1994; Denis et al., 2002; Graham et al., 2002; Villalonga, 2004; Andrés et al., 2014), or coinsurance (e.g., Hann et al., 2013). Montgomery (1982) while comparing categorical diversification measure as proposed by Rumelt (1977-78) and continuous SIC-based product count diversification measure indicated significant relationships between these measures, suggesting that both the measures tap a common underlying continuum. Moreover, the author asserted that the continuous diversification measures can be calculated in lesser time and with limited data requirements, making them well-suited for large samples cross-sectional analysis and multivariate analysis over categorical measures. Controlling for the influence of firm-specific characteristics (such as size, leverage, book-to-market, growth opportunities, profitability, R&D intensity, age, etc.), macro-economic characteristics, endogeneity, year-effects, industry-effects, and group effects that have a bearing upon the nature of the relationships hypothesized is also common across a number of studies (e.g., Lang & Stulz, 1994; Berger & Ofek, 1995; Lins & Servaes, 1999; Kakani, 2000; Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Campa & Kedia, 2002; Lins & Servaes, 2002; Mansi & Reeb, 2002; Villalonga, 2004; Mishra & Akbar, 2007; Kuppuswamy & Villalonga, 2010; Lee et al., 2012; Hann et al., 2013; Purkayastha, 2013; Rudolph & Schwetzler, 2013; Andrés et al., 2014; Rudolph & Schwetzler, 2014; Berg, 2016).

It is pertinent to add here that a large number of researchers have excluded certain companies out of the purview of investigation. For instance, many authors have eliminated the firms or segments (or affiliates) belonging to financial services industry along with the firms or segments (or affiliates) having annual sales of less
than $20 million (e.g., Berger & Ofek, 1995; Campa & Kedia, 2002; Graham et al., 2002; Lamont & Polk, 2002; Villalonga, 2004; Mishra & Akbar, 2007; Marinelli, 2011; Lee et al., 2012; Hann et al., 2013; Rudolph & Schwetzler, 2013; Andrés et al., 2014; Rudolph & Schwetzler, 2014; Volkov & Smith, 2015; Berg, 2016). In addition, the government-owned and foreign companies also did not make their way to the final sample. The need for meaningful valuation multiples justifies the exclusion of such companies from the final sample.

### 3.2.5.2 Method of Investigation

In order to identify the strength and direction of relationship between diversification and cost of capital and diversification and corporate value, majority of the researchers have computed mean and median differences between the dependent variable (excess cost of capital or excess value) of diversified and focused firms as a preliminary analysis, while checking for the significance of such differences. Multivariate regression analysis using Ordinary Least Squares (OLS) has been commonly used for assessing the magnitude of the direction of relationships hypothesized (e.g., Lang & Stulz, 1994; Comment & Jarrell, 1995; Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Mansi & Reeb, 2002; Marinelli, 2011; Berg, 2016). To this effect, a number of researchers have employed cross-sectional regression analysis (e.g., Lang & Stulz, 1994; Lins & Servaes, 1999; Graham et al., 2002; Mishra & Akbar, 2007), some authors have pooled cross-sectional data across time (e.g., Berger & Ofek, 1995; Comment & Jarrell, 1995; Lamont & Polk, 2002; Hann et al., 2013; Purkayastha, 2013), while others have formulated panel data regressions (balanced or unbalanced) to study time-series and cross-sectional data (e.g., Comment & Jarrell, 1995; Campa & Kedia, 2002; Marinelli, 2011; Purkayastha, 2013). A few authors have also adopted Probit regression using panel data (e.g., Campa & Kedia, 2002; Villalonga, 2004). Besides determining the economic significance of the findings, the authors have also ensured the robustness of their results across alternative variable measurements.

### 3.2.5.3 Substantive Findings

The literature provides evidence of numerous studies pertaining to various facets of corporate diversification. Of various research issues addressing the costs and benefits of corporate diversification, an assessment of whether diversification adds or destroys corporate value is of fundamental importance. Owing to the large prominence and
economic significance of conglomerates and diversified business groups in an economy, an empirical evaluation of the impact of diversification on key corporate metrics, that is, cost of capital and corporate value is a prerequisite.

The conventional view among theorists and academicians is that the organizational form does not influence a company’s cost of capital due to ineffectiveness of corporate diversification strategy in altering the systematic risk. However, the empirical evidence proves the opposite. Contrary to the wisdom of modern portfolio theory, the researchers have established that corporate diversification tends to lower the diversifying firm’s systematic risk, especially for the related diversified firms. Such empirical evidence conjectures that corporate diversification might positively influence the cost of capital due to its ability to lower the systematic risk. Relying upon the limited evidence available from a U.S study (i.e., Hann et al., 2013), the diversified firms have lower cost of capital than the comparable portfolios of standalone firms.

With respect to the advanced nations, the studies conducted post 1980s largely addressed the costs of diversification and rendered conclusive evidence that diversification lowers performance and destroys firm value. However, substantially a large number of studies on the subject have attributed such value losses to numerous other factors (that proxy for diversification) than diversification itself. Researchers have always been optimistic about corporate diversification in emerging economies, particularly India. The Indian-based corporate diversification literature, by and large, suggests the benefits of group diversification and present higher (book as well as market) valuations for diversified business groups as opposed to focused companies. The evidence pertaining to the superiority of a particular diversification strategy (in terms of value or performance) is indeterminate across advanced and emerging economies. Broad perspectives of institutional-based view or transaction cost economics and resource-based view provide the theoretical underpinnings for the relationships observed in the empirical literature.

3.2.5.4 Research Gaps

The valuation impact of diversification has long been researched in the U.S. and other advanced nations. The merger wave of 1960s and the ultimate downfall of conglomerates post 1980, however, grabbed the attention of researchers worldwide
towards the severity of the issue. Though the studies on diversification and value (or performance) linkage have been conducted across the globe, there is still lack of studies to render conclusive evidence in the emerging economies.

The soaring predominance of diversified business groups in India calls for the research efforts in identifying what drives their increasing popularity. In the Indian context, majority of the studies on diversification and corporate value (e.g., Pandya & Rao, 1998; Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Mishra & Akbar, 2007; Belfiore, 2015; Berg, 2016), have employed either accounting or market measures to ascertain the valuation (or performance) impact of diversification, rather than utilizing the standard ‘excess value methodology’ pioneered by Berger and Ofek (1995) in their foundational work on corporate diversification and firm value. To add, the past Indian studies have not reached a consensus on the issue of superiority of a particular diversification strategy in the Indian context. Moreover, the empirical evidence regarding how the corporate diversification impacts cost of capital is largely absent in India. This gap in the literature warrants an understanding of corporate diversification from the facets of cost of capital and corporate value in the context of corporate India.

3.3 SUMMARY

A comprehensive review of the relevant studies has been conducted in the present chapter. The review has been systematically organized across four sub-parts, that is, diversification and company’s cost of capital, diversification and corporate value, diversification strategy and corporate value, and sources of value gains or losses from diversification, classified on the basis of study objectives. On the basis of an exhaustive review, testable research hypotheses have been formulated keeping the research questions into perspective. The hypotheses formulated above provide a reasonable basis for subsequent empirical analysis. Further, significant methodological observations have been made in the concluding section as a useful guide to research design for the present study, as discussed in the following chapter.
REFERENCES


