CHAPTER 2

REVIEW OF LITERATURE

The previous chapter provides an understanding of various aspects related to the resource based theory. It presents the role of identification of resources, the interaction among these resources, the influence of external environment on resources and the role of deployment of resources in creating competitive advantage for a firm. The present chapter provides a detailed review of the studies that have been conducted to examine the above issues. The review has been segregated into five sections. The first section corresponds to the studies that identify the resources and their impact on firm outcomes. The second section comprises of reviews of studies investigating the role of industry. The third section corresponds to the studies that examine the impact of corporate governance and management competence on firm performance. The fourth section reviews the studies that explore the influence of deployment of resources by means of management competence and governance on firm performance. The fifth section reviews the studies pertaining to the Indian context.

STUDIES IDENTIFYING THE RESOURCES, THEIR INTERACTIONS AND ESTABLISHING THEIR RELATION WITH FIRM OUTCOMES

Studies in this section have been carried out by researchers attempting to identify the resources and establishing their relation with firm outcomes. Besides, they also try to establish the interaction among resources that help build certain configurations that affect firm outcomes.

*Studies identifying the resources and establishing their relation with firm outcomes*

Barney (1991), in this pioneer research study that is considered as a building block of the Resource Based Theory, provides conceptual understanding regarding the relationship between firm resources and competitive advantage. He initially defines the key concepts of firm resources, competitive advantage and sustainable competitive advantage. Further, he provides the logic behind assuming the firm resources as being heterogeneously distributed and immobile for creation of sustainable competitive
advantage. He argues that not all the resources with a firm provide it with sustainable competitive advantage. It is only those resources that possess the four attributes of being valuable, rare, imperfectly imitable and non-substitutable which will provide competitive advantage to a firm. After providing a detailed description of these four attributes he provides examples for the application of this resource based logic and the implications this logic has for other business disciplines.

Henderson and Cockburn (1994) in the context of pharmaceutical research, try to establish the role of heterogeneous organizational competence in dealing with competition. They divide the competencies into two categories, component competencies meaning knowledge that is fundamental to day-to-day problem solving, and, architectural competencies which is the ability to use component competencies, to integrate them effectively and to develop fresh component competencies as required. Both public and internal firm data collected through in-depth field interviews of ten major pharmaceutical companies in Europe and USA for the years 1975 through 1988, are utilized. The analysis of the data, thus collected, reveals that architectural competencies are significantly related to research productivity. They, however, do not formally test for component competencies but examine the publications in the open scientific literature to suggest that firms did differ in terms of these competencies. They conclude that there is a considerable support for competence as a source of advantage in resource productivity.

Mehra (1996) using the strategic group framework, examines the determinants of firm performance in the U.S. banking industry. He draws on both the market and the resource based models to come up with strategic groups utilizing the data collected on 45 banks. For market based groups, secondary data is utilized, while for resource based groups he uses expert panel comprising 11 experts. He finds that the groups based on RBV had a better capability to soak intra industry performance variation, than the groups based on market based measures. Further, the results show a strong overall association between firm resource endowments and superior performance. It also appears from the analysis that certain resources confer a disproportionate degree of advantage, and some of them seem to work only in particular combinations. In conclusion, the author suggests that simply being endowed with or developing strategic
resources is not enough, effective deployment of these resources, in suitable combinations, is essential for realizing their full value in the marketplace.

Miller and Shamsie (1996) recognizing the need for systematic empirical studies in the field of resource based theory, examine the impact of resources on firm performance. They first classify the resources into property-based and knowledge-based resources and then test the impact of these resources on firm performance taking into consideration the environmental aspect. To carry out the research they utilize the data from seven major U.S. film studios from 1936 to 1965. They divide the time-period into two very distinct eras- the first, one of great stability and predictability, and the second, one of much upheaval, change, and uncertainty. They find that property-based resources in the form of exclusive long-term contracts with stars and theaters positively influence financial performance in the stable, predictable environment of 1936-50. However, the knowledge-based resources in the form of production and coordinative talent and budgets are found to significantly influence financial performance in the more uncertain post-television environment of 1951-65. Thus their study highlights that hard to buy or imitate resources contribute to performance but the environmental context has an all-important role to play in conditioning these relationships.

Combs and Ketchen (1999) carry out an investigation of 94 publicly held restaurant chains to examine inter firm cooperation and performance in the context of Resource Based View and Organisational Economics. They consider two strategic resources Top Management Team (TMT) experience and Brand reputation and one non-strategic resource slack capital. The performance variables were operationalized through Return on Assets and Market to Book value. For inter firm cooperation they computed the ratio of new restaurants built with cooperative partners to total value added to the chain. They find that firms running low on resources would go for inter- firm cooperation while the ones rich in resources will not indulge in it. They also find that brand reputation and financial slack have a significant impact on the firm profitability while TMT experience does not.

Decarolis and Deeds (1999) examine the relationship between the stocks and flows of organizational knowledge and firm performance in the biotechnology industry. With
stocks of knowledge, they mean accumulated knowledge assets which are internal to the firm, and by flows, they mean the knowledge that streams into the firm or various parts of the firm which may be assimilated and developed into stocks of knowledge. In this study, knowledge stocks are captured through scientific citations and patents of the firm, while knowledge flows are captured through geographical location, alliances and R&D expenditure. The independent variable, firm performance, is operationalized using the market value, which is defined as the total market value of the offering firm’s equity at the end of the day trading. They analyze data collected from the IPO prospectus of ninety-eight companies. The results are found to reveal that knowledge assets do impact the firm performance with knowledge stocks having a greater impact than knowledge flows.

Berman et al. (2002) investigate tacit knowledge as a source of competitive advantage. They carry out their study using a sample of twenty-three teams from National Basketball Academy for a period ranging from 1980-81 season to 1993-94 season. The independent variables used are shared team experience as a proxy for the value of the stock of tacit knowledge held in the collective mind of a team and standard deviation of shared team experience as a proxy of team experience heterogeneity. The analysis reveals that shared team experience has a positive impact on competitive advantage, whereas, team heterogeneity fails to show any significant relationship with competitive advantage. Based on this finding they conclude that success is related to the ability of the firm to identify and retain talented employees.

Shroeder et al. (2002) examine the impact of manufacturing capabilities of internal learning, external learning and proprietary processes and equipment on manufacturing performance. They build a model where the role of learning and knowledge generation within the plant is to generate proprietary processes and equipment which in turn act as a mediator between learning and performance. They carry out their study on the data collected on 164 manufacturing plants in Germany, Italy, Japan, the UK and the U.S. where the plants represented three industries, namely, electronics, machinery, and automobile component suppliers. Though at first the model shows lack of fit, Modification Indices are introduced to examine the stability of the estimates to minor specifications in the model which improve the fit. This confirms that internal learning,
external learning and proprietary processes and equipment performance have significant impact on performance and that proprietary processes and equipment do moderate the relationship between internal learning, external learning and performance of the company.

DeCarolis (2003) addresses two questions, first, does technological competence enhance firm performance, and second, does competitor imitation of firm knowledge hurt performance. She develops the measures of technological competence and imitability, which are tested together with marketing and regulatory competence for their impact on firm performance. A sample of 14 U.S. Pharmaceutical companies is studied, and the author considers pharmaceutical industry appropriate for this study as the three types of competencies viz. technological, marketing and regulatory are considered valuable here. The technological imitability is measured using the citation analysis, marketing competence is operationalized using the ratio of advertising expenditure to sales and regulatory competence is measured through the number of drug approvals in a year. The dependent variable, performance, is measured using both marketing based and accounting based measures which are market to book value and return on assets, respectively. The analysis reveals conflicting results where the technological competence has a positive impact on return on assets while a negative impact on market to book value; on the other hand marketing competence has a positive impact on market to book value. According to her, it can be implied from these results that in the short term, building on prior stocks of knowledge may be a superior strategy. However, future cash flows, as evidenced by market to book value, do not benefit from the strategy of building on firm knowledge stocks. The results also reveal that imitability has a negative relationship with both market to book value and return on assets. This, the author, considers as a significant result given the importance of the imitability concept in the resource-based view. According to her, this provides strong evidence that a firm’s competitive advantage can be diluted quickly as other firms draw from its technological knowledge. Further it is also found that regulatory competence has a positive relationship which affirms the importance of cultivating effective relationship with governmental bodies.
Douglas and Ryman (2003) examine the direct and joint effects of market structure, firm level competencies and inter organizational relationships, on organizational performance. They carry out the study on the data collected from 824 hospitals in the 32 largest hospital markets in the USA. The variables include: strategic competencies, physician linkages representing inter organizational relationships and “managed care buyer power” and industry competitive rivalry representing market structure. The dependent variable used is cash flow margin: an average of 1996 and 1997 cash flows obtained from the American Hospital Directory. They find that the hospital’s strategic competencies are positively related to competitive advantage while no significant impact of market structure and inter organizational relationships is found on firm performance. Thus, they conclude that strategic resources or firm level competencies should be built as they help a firm lead to competitive advantage as well as take care of the industry pressures.

Makhija (2003) investigates whether Resource Based View or Market Based View is a better predictor of the value of a firm’s value in times of great change. She builds two models based on Resource Based View and Market Based View to determine the value of a share. The models, thus generated, are analyzed using the data collected from 988 Czech firms undergoing privatization. The analysis yields the result that the Resource Based View predicts the value of a firm better than Market Based View, thus, highlighting the role of a firm’s resources as the primary determinant of firm value in times of rapidly changing environment.

Hatch and Dyer (2004), using the resource based logic, establish the relation between human capital investments and firm performance. They, by means of their study, establish the link between human capital selection (education requirements and screening), development through training, and deployment of human resources to learning activities, first with learning by doing performance and then with firm performance. They utilize a sample of 25 semi-conductor manufacturing facilities in United States of America, Asia and Europe. They find that firm-specific human capital selection, training and deployment have a significant impact on learning by doing, which in turn improves performance. The competitive advantage attained is sustainable.
as it is inimitable, firm specific and of socially complex nature. They, thus, provide an understanding of how management of learning, through management of human capital, contributes to sustainable competitive advantage.

Cho and Pucik (2005) investigate the relationship between innovativeness, quality, growth, profitability, and market value at the firm level. They build and test a model of how a firm’s capability to balance innovativeness with quality drives growth and profitability in a firm resulting in superior market value. To test their model, they use Fortune’s list of America’s Most Admired companies published in March 1999, February 2000 and February 2001. The independent variables innovativeness and quality scores are obtained from Fortune magazine. The measures of profitability used are Return on Assets, Return on Equity, Return on Investments and market based performance measures Tobin’s q and market to book ratio. By using Structural Equation Modeling (SEM) technique to analyze the data, they find that innovativeness and quality directly and positively affect profitability; also innovation mediates the relationship between quality and growth, while quality mediates the relationship between innovation and profitability. Thus, they conclude that companies that can balance innovativeness with quality improvement creates a virtuous cycle of growth, profitability and premium market value.

Kor and Mahoney (2005) examine the effects of R&D and marketing, on firm performance. They carry out their research study on sixty technology based entrepreneurial firms that completed an IPO in medical surgical and dental instruments industry. The results reveal that marketing capabilities have a positive and significant impact on competitive advantage but R&D investments do not.

Acquaah and Chi (2007) examine the impact of firm specific resources on firm profitability taking into account the moderating effect of industry characteristics on this relationship. They carry out their research on 86 manufacturing firms in the U.S.A. They test the relationship between corporate management capabilities, employee value added, technological competence, industry growth, industry concentration and change in industry concentration and firm performance. The firm performance variables used are: Tobin’s q, return on assets and return on sales. The results of the analysis reveal
that resources have a strong relationship with firm performance, and industry characteristics moderate the relationship between firm resources and firm profitability.

Morgan et al. (2009) examine the relationship between possession of a market orientation and the marketing capabilities through which resources are deployed in the marketplace, and firm performance. They examine market orientation as a key market-based asset, and firms’ marketing capabilities as a key market-relating deployment mechanism thereby contributing to the understanding of how resources are deployed to achieve competitive advantage. The data is collected from CEOs of 230 U.S. firms across industries, in the consumer and business markets offering both services and goods (durable and non durable) to test the individual and complementary impact of market orientation (resource) and marketing capabilities. The firm’s performance is measured in two ways, through average Return on Assets and subjective assessment by the respondents. The data analysis reveals that while market orientation is directly linked with performance measured in terms of Return on Assets, but is not linked with subjectively perceived performance. However, the results reveal a significant direct relationship between firms’ marketing capabilities and both subjectively and objectively assessed performance. Further, they find that market orientation and marketing capabilities are complementary assets that in integration contribute to superior firm performance.

Sirmon and Hitt (2009) examine the relationship between resource investment and resource deployment on firm performance. By resource investment, they mean the magnitude of funds a firm invests to acquire or develop resources, while resource deployment means the specific market segments in which to engage these investments. Utilizing a sample of 249 U.S. banks over a period of five years (1998-2002), they analyze the effect of resource investment (physical capital investment and human capital investment) on firm performance (Tobin’s q). They find that deviation from the investment norms set by rivals, both higher and lower, for human and physical capital negatively affect performance.

Vorhies et al. (2009) empirically investigate the relationship between a strategic business unit’s product-market strategy, its marketing capability and its performance.
The strategies included are differentiation, cost focus and product market scope. The marketing capabilities are divided into two categories: architectural and specialized marketing capabilities. They carry out the study by simultaneously studying single industry and multi industry samples. The single industry study utilizes a sample of 270 motor carrier firms while the second study utilizes a sample of 85 firms out of U.S Fortune 500, across industries. The results obtained indicate that strategy influences marketing capabilities and architectural and specialized marketing capabilities have an impact on performance individually, as well as, in integration.

Wu (2010) investigates the relationship between dynamic capabilities and resources and competitive advantage, taking into consideration the contextual effect. He uses a data-set of 253 firms from Taiwan. The resources and capabilities are distinguished based on Amit and Schoemaker (1993) classification. A survey is conducted to collect the data where resources used are specialized knowhow, management capabilities and alliance experience, while the dynamic capabilities studied are resource integration capability, learning capability and resource configuration capabilities. Using regression analysis, the author finds that in stable environment both dynamic capabilities and resources have an impact on competitive advantage, while in volatile environments, it is dynamic capabilities that aid the organization more than the resources at their disposal.

The above review brings forth the studies that identify resources which help a firm perform better. Though not all of them study the impact of resources on firm performance, they certainly help us understand the role of resources in making a firm do better than its competitors. Further, the researchers have identified the resources in a range of areas: innovation, R&D, knowledge, marketing, human resource, finance and production etc. The review also highlights that the researchers do not always find a significant relation between the firm performance and the resources that they argue to be strategic.

Studies identifying the interaction among resources and relation with firm outcomes

Yeoh and Roth (1999) examine the relationship between resources and capabilities and sustainable competitive advantage. They draw from Amit and Schoemaker (1993) for distinguishing between resources and capabilities where resources mean the basic inputs
to the transforming capabilities of the firm. Further, they segregate the capabilities into component and integrative, based on Henderson and Cockburn (1994). Component capabilities are represented through the variables internal R&D efforts and therapeutic market focus; while integrative capabilities are represented through approval success and radical innovations; and resources include R&D expenditure and sales force expenditure. Sustained competitive advantage is represented through two variables, differentiation and global new chemical entities. They carry out the study of twenty firms in pharmaceutical industry for a period ranging from 1971 to 1989 to test their model how resources and capabilities affect sustainable competitive advantage. The results supported the model that resources and capabilities positively affect sustainable competitive advantage but there is a hierarchical structure or layering of resources as they relate to competitive advantage. Thus, to achieve sustainable competitive advantage the capabilities using resources as inputs interact with resources and among themselves.

Bharadwaj (2000) develop the concept of information technology as an organizational capability and examine the association between information technology (IT) and firm performance. He classifies firm specific IT capabilities into IT infrastructure, human IT resources and IT enabled intangibles. The study is carried out on a sample of 56 firms in the U.S. and the period of the study ranged from 1991 to 1994. The rankings provided in Information Week magazine were used to identify the firms with superior IT capability. Matched sample comparison group methodology is used which compares the levels of interest variables among two samples viz. treatment and control. The Wilcoxon Rank Sum test is applied to evaluate the differences in the levels of the target variables in the two groups of firms. It is found that IT capability is a rent generating resource that cannot be easily imitated. He concludes that the interaction among IT infrastructure, human IT resources and IT enabled intangibles makes IT a firm specific imperfectly imitable resource for the company leading to its competitive advantage.

Hitt et al. (2001) examine the direct and moderating impact of human capital on professional service firm performance. They focus their research on performance effects of human capital, the leveraging of human capital and the interaction of human capital
and firm strategy. The strategy in question is the service and geographical diversification strategy. They carry out their study on 93 law firms in the USA for the years 1987 through 1991. Independent variables included are human capital, human capital leverage, service diversification and geographic diversification while the dependent variable used is firm performance operationalized through Return on Sales. The model results reveal a curvilinear relationship between human capital and performance. Curvilinear relationship means that the effect of human capital on performance is initially negative but turns positive with higher levels of human capital. Human capital leverage has a positive impact on firm performance and there exists a moderating effect on the part of human capital in strategy and performance relationships. Thus, the human capital utilizing its tacit knowledge gained through experience helps in the successful implementation of a strategy.

Carmeli and Tishler (2004) establish the relationship between intangible organizational elements and the interactions among them on a set of objective organizational performance measures. They highlight the dearth of research linking organizational elements, independently and interactively, to firm performance especially in public sector organizations. The set of intangible elements taken into consideration are: managerial capabilities, human capital, perceived organizational reputation, internal auditing, labor relations, and organizational culture. The performance is measured on the basis of the employment rate, a measure of municipal development, and internal migration. They utilize a sample of 99 local government authorities in Israel to study how intangible organizational elements independently and interactively are related to organizational performance. They find that intangible organizational elements independently and interactively have a positive and substantive impact on the organizational performance. Thus, they conclude that Resource Based Theory can serve as a useful paradigm for the analysis of variation in the performance of public sector organizations.

Nerkar and Roberts (2004) explore the determinants of success of a firm’s new product introductions. They test the idea that technological and product-market experience lead to early advantages to the new product offerings of a firm which further leads to higher
initial sales levels. They carry out their test on a sample of 45 firms in the pharmaceutical sector from 1987 to 1992. The product-market and technological knowledge are categorized into two: proximal and distal and each is tested to know its impact. By proximal they mean within a given domain and by distal they mean not closely linked to focal product introduction. The dependent variable is the sales of the new product and independent variables are both proximal and distal technological and marketing experience. The results obtained suggest that the interaction between distal technological knowledge and proximal product-market knowledge and the interaction between proximal technological knowledge and proximal product-market knowledge have a significant impact on the success of new product introduction. Based on the results obtained they conclude that it is more important for the firm to develop its proximal product-market and technological knowledge though not ignoring the distal technological knowledge.

Song et al. (2005) examine the relationship between capabilities and firm performance taking into consideration the environmental aspect. Specifically, they investigate the impact of marketing capabilities, technological capabilities and their integration on firm performance under two environmental contexts viz. high and low turbulence. They use new product commercialization joint ventures as a setting, as they consider it a stage where the interaction between capabilities is most likely to occur where the very purpose of the alliance is to provide an access to complementary assets. The sample comprises of 466 joint ventures in the time-period ranging from 1990-1997 in the US. It is found that technological capabilities has a significant impact on firm performance in both the environmental contexts, while marketing capabilities has a significant impact on firm performance in low turbulence. The interaction of marketing and technological capabilities has a significant impact on firm performance in high turbulence. Thus, they conclude that capabilities and their integration have an impact on the performance of the company, but are dependent on the environmental context in which the firm operates.

Lin et al. (2006) consider marketing and innovation as the two basic functions of a business enterprise and investigate both the individual and collective effects of R&D intensity (innovation) and commercialization orientation (marketing) on the firm’s
financial performance. To test this they study a sample of 258 technology based companies in U.S., from 1985-1999. The performance variable used is Tobin’s q. Their analysis of the data reveals that commercial orientation individually and in interaction with innovation has a positive and significant impact on the competitive advantage. Based on their findings they conclude that a firm should try and build both marketing and R&D competencies to help attain superior performance.

Neill et al. (2014) investigate the relationship of technology and marketing capabilities with firm performance. The samples for the study have been drawn from the countries of Fiji, Samoa and Tonga. The survey based study reveals that technology and marketing capabilities are significantly related to firm performance.

The above review highlights that resources, at times, not in seclusion but in interaction among themselves influence firm outcomes. This interaction among resources provides the organization avenue to gain advantage over its competitors. Hence, a study of interaction of resources becomes an important research area.

STUDIES ESTABLISHING THE INFLUENCE OF INDUSTRY ENVIRONMENT ON THE RELATIONSHIP OF RESOURCES WITH FIRM PERFORMANCE

The following studies examine the influence that industry environment exerts on the relationship of resources with firm performance. The studies also establish the relative importance of internal (resources) and external (industry) in firm performance.

Rumelt (1991) establishes the relative importance of firm effects, corporate effects and industry effects in explaining a firm’s performance. He analyzes a four year FTC (Federal Trade Commission) LB data-set. His conclusion regarding the corporate effects having a miniscule impact on firm performance is similar to Schmalensee (1985). However, his other conclusions regarding firm and industry effects are found to be in contradiction to Schmalensee. Rumelt (1991) finds that the most important sources of firm performance are resources or market positions that are specific to a particular business-unit rather than membership in an industry. Specifically, his analysis reveals negligible corporate effects, small stable industry effects, and very large stable business-unit effects.
Mauri and Michaels (1998) study the complementarities between Resource Based and Industry Organization perspectives. They, estimate the firm and industry effects on core strategies as well as firm performance. They carry out the analysis utilizing a sample of 264 single business firms from 69 industries. Their analysis reveals that there exist complementarities between the Resource Based and Industry Organization perspectives. The results support a strong influence of industry level drivers on core strategies, particularly of R&D and advertising investments. On the other hand, the results concerning the firm performance confirm a strong influence of firm effects, rather than industry effects.

Claver et al. (2002) ascertain the relative importance of firm resources (firm effect) and industry membership (industry effect) in explaining firm profitability. Their research is set in the Spanish context with data corresponding to a period of five years (1994-1998) for non-diversified manufacturing companies in Spain. They find that firm effects dominate over industry effects in explaining a firm’s profitability. But they raise a caution against ignoring industry effects altogether and forgetting the ideas and models that industrial organization has provided to strategic management. Their research does reveal that industry effects do not matter to the extent of firm effects and the strategy must be derived from a suitable internal analysis complemented by an appropriate external analysis of the industry.

Hawanini et al. (2003) investigate the degree of influence of firm and industry effects in predicting firm performance. They use value-based measures of performance which is a departure from previous research on the issue, as a measure of performance. They also examine the influence of outliers on firm and industry effects. Their results are in conformity with previous research that firm effects influence firm performance to a much higher degree than industry factors. Their finding is robust to the different measures of firm performance that they take into consideration. Further, they find that for the industry leaders and losers, that is, the outliers, the firm effects matter to a higher degree while for others the industry effects seem to have a larger impact.

Melville et al. (2004) investigate the influence of a firm’s competitive environment in moderating the productivity impact of information technology. Based on previous
research they identify two dimensions of the competitive environment that are likely to shape IT business value: industry concentration and industry dynamism. A production function is estimated, using a sample of 5211 firm–year observations spanning a time-period ranging from 1987 to 1994. The results reveal that in more concentrated industries the marginal product of IT is lower while there is limited evidence that the marginal product of IT is higher in more dynamic industries. Their results thereby suggest that IT provides enhanced productivity impacts in firms in less concentrated industries, without any loss of productivity in dynamic industries. Thus, they add to the understanding of the role of competitive environment.

Sirmon et al. (2007) use a contingency theory framework to explore the influence of external environment on the resources management process of structuring, bundling and leveraging. They raise a concern regarding the absence of research linking management of resources to the creation of value. According to them, to fully understand the linkage between management of resources and creation of value, the effect of a firm’s environment on managing resources needs to be examined. In the course of their study they develop certain propositions linking various aspects of resource management process among themselves and with the external environmental context. They advocate that to create synchronization in each component of resource management it requires the top management to consistently scan their external environment regarding customer needs, and potential changes that could affect the firm’s ability to create value for their customers. Emphasizing upon environmental dynamism, they stress upon a firm’s need to respond to changes in the level of environmental uncertainty (dynamism) in addition to specific competitor actions by maintaining resources that ensure flexible response. Through this research, they, thus, contribute to the existing knowledge of managing resources in the dynamic environment.

Short et al. (2007) establish the variance in firm performance accounted for by the firm, strategic group and industry levels. Using data corresponding to 12 industries they find that all the three levels are significantly associated with firm performance. They find that firm effect accounts for the highest variance, followed by group and the industry effect which play a major role, as well. Based on their findings, they conclude that the firm performance is roughly equal to the product of a firm and its context.
Galbreath and Galvin (2008) investigate the relative influence of firm effects and industry effects on firm performance. Though it is an often researched area, they offer a different approach by carrying it out in a different context which is Australia and across service and manufacturing sectors. Carrying out the analysis on a sample of 285 firms they find that resources (firm effects) are more important than industry structure (industry effects). Further, they find that in service firms, firm effects prove to be of much more importance in explaining performance variation than in manufacturing firms.

Stoel and Muhanna (2009) examine the relationship between IT capabilities and firm performance taking into consideration the environmental conditions. They identify two kinds of IT capabilities: internally focused and externally focused and then ascertain the influence of the industry characteristics on the impact that each of the IT capability has on firm performance. They study three industry characteristics: dynamism, complexity and munificence. Through their analysis they come up with a general finding that impact of an IT capability depends on the characteristics of the environment or industry in which the firm competes. Thus, they highlight the role of industry as an important contextual factor in developing and testing a theory about IT impacts. Further their analysis of the contingency model accentuates the knowledge about the relation between IT capabilities and the firm performance. Regarding resources in general, they conclude that that the impact of firm resources on the firm is contingent on the ‘‘fit’’ between the type resource a firm possesses and the demands of the industry in which it competes.

Wang and Chen (2010) examine the contingencies that either makes the relationship between firm—specific innovation and value appropriation stronger or weaker by examining the contingencies that influence the value of firm-specific innovations. The first of these contingencies tested is the dynamism in the firm’s technical and competitive environments. Based on the analysis of a sample of US manufacturing firms, they find that though there is a strong positive relationship between firm-specific innovations and firm value this value tends to decrease when product or technology market is highly dynamic. Based on their results, they further recommend that, under high environmental dynamism, firms should increase the diversity in their knowledge.
composition in order to mitigate the risk of value erosion associated with firm-specific innovations.

The above review highlights the dominance of firm effects in influencing firm performance as compared to industry effects. Nevertheless, the review has also emphasized the need to study the influence of industry effects as even though it does not impact the firm performance to the same degree as the firm effects, still its importance cannot be undermined. The studies, taking the industry into consideration, are seen to report the industry playing an important role in rendering a resource as strategic or non-strategic to a firm.

**STUDIES EXAMINING THE IMPACT OF MANAGEMENT COMPETENCE AND CORPORATE GOVERNANCE ON FIRM PERFORMANCE**

In this section the studies related to governance in general and various governance mechanisms (board, ownership structure and CEO) in particular, are reviewed.

*Studies examining the influence of governance on firm performance*

Gompers *et al.* (2003) examine the impact of governance measures on firm performance. To carry out their research they construct a governance index as a proxy for the strength of shareholder rights. The data utilized ranges from 1990-1999. They find that corporate governance is strongly correlated with stock returns during the 1990s and that a firm with stronger shareholder rights has higher firm value, higher profits, higher sales growth, lower capital expenditures, and makes fewer corporate acquisitions.

Brown and Caylor (2004) create a summary index comprising of 51 factors that span eight categories. They relate this index to the operating performance, valuation, and cash payouts for 2,327 firms for the year 2003. They find that poorly-governed firms, that is, those firms scoring low on the index, have lower operating performance, lower valuations, and pay out less cash to their shareholders, while firms with a better score have higher operating performance, higher valuations, and pay out more cash to their shareholders.
Klapper and Love (2004) carry out a study in 14 emerging economies to understand corporate governance within the ambit of a country’s legal system. They find that the level of governance differs across the emerging economies. Further, their findings divulge that the economies with weaker legal systems have lower firm-level governance. They also find that better governance is correlated with better operating performance and better market valuation.

Klein et al. (2005) analyze the relationship between corporate governance and firm value in Canada. They utilize a sample of 263 firms. To analyze the impact of corporate governance on firm performance they use corporate governance index. The findings reveal that the total governance index has no significant impact on firm performance. However, when they analyze the corporate governance sub-indices they find that these have significant relationship with firm performance. They find that the sub-indices measuring effective compensation, disclosure and shareholder rights practices, enhance performance. To this they raise a concern regarding measuring corporate governance at an aggregate level by indices and the weighting schemes utilized by the index developers. They, thus, highlight the need for financial analysts to carefully examine the issues involved while developing indices and establishing their link with firm performance.

The review of above studies highlights that corporate governance does contribute to performance. It is also emphasized that utilizing an index does not adequately bring out the importance of individual governance mechanisms of board, ownership or management. It is, thus, required that these mechanisms be studied individually.

Studies examining the influence of board composition on firm performance

Pfeffer (1972) examines the use of board of directors as a vehicle for dealing with problems of environmental interdependence and uncertainty. He finds that organizations that deviate more from an optimal or preferred structure in their board of directors tend to be significantly less profitable, controlling for industry effects, than those which do not deviate as much. He concludes that the board size and composition should not be
treated as random factors but should be treated as rational organizational responses to the conditions of the external environment. The firms that fail to utilize the board of directors optimally pay a real penalty in the form of reduced profits.

Baysinger and Butler (1985) investigate the effect of board independence on financial performance. While studying board independence they evaluate a number of research questions regarding: the board composition, changes in composition, corporate financial performance, and changes in performance. They find that the board composition, that is, the proportion of outside independent directors does not have a significant effect on the firm performance. However, they find the effect to be lagged. Further, their analyses reveal that any changes in composition do not produce significant changes in performance, over time. Their results suggest that there exists a point of diminishing marginal returns to the strategy of greater board independence. The key finding they make is that the ratio of independent to inside directors required for satisfactory financial performance appears to be well below the compositional mandates advocated by reformers. They conclude that the precise percentage of board composition may be contingent upon organizational and environmental factors which are found to differ from industry to industry and from firm to firm. They conclude by suggesting to the policy makers that any public policy prescription in favor of any particular board composition—be it extremely independent, 50% independent, or no independent directors—is likely to prove wrong in an economy with firms that are different and dynamic.

Hermalin and Weisbach (1991) examine the relation between board composition and firm performance. Their sample consists of 142 companies listed on the New York Stock Exchange for five years and Tobin’s q is taken as the measure of firm performance. They find no relation between board composition (proportion of independent directors on the board) and firm performance. The possible explanation that they extend for this lack of relationship is that board composition simply does not matter and inside and outside directors are both equally good and bad at representing shareholders interests.
Barnhart *et al.* (1994) investigate the impact of board composition on firm performance. They recognize that board composition may be endogenous to performance. Thus, they utilize instrumental variable (IV) approach to obtain consistent estimators. The performance of the firm is measured as the ratio of market to book value of common stock equity. Their initial data set is Standard and Poor’s 500. The final sample comprises of 369 firms. The ordinary least squares (OLS) estimates obtained indicate a significant relationship between board composition and firm performance. Several of their IV models suggest a curvilinear relation between board composition and firm performance. The board composition is measured as the proportion of independent outside directors. They also include the managerial ownership measured as the percentage of shares owned by officers and directors as a group, board size and institutional holdings of common stock. The OLS results suggest that when outsiders dominate the board the firm performance increases. The results obtained for IV models indicate composition has a significant impact on performance in three out of eight models that are tested.

Agrawal and Knoeber (1996) explore a range of mechanisms to control agency problems between managers and shareholders. They utilize a sample of 383 large U.S. firms to examine the empirical relation between the control mechanisms and firm performance as measured by Tobin’s *q*. The control mechanisms include insider shareholding, institutional shareholdings, shareholdings of large blockholders, representation of outsiders on the board of directors, use of debt, use of the external labor market for managers, and takeover activity. They first investigate each mechanism separately, thereby ignoring any interdependence among them. They find that outside representation on the board, debt policy, and activity in the corporate control market are all cross-sectionally related to firm performance. Further, when they examine all of the mechanisms together, the relation of performance with board composition, debt policy, and corporate control activity is found to remain. When the simultaneous system estimation is used, recognizing possible endogeneity, only the effect of outsiders on the board of directors is seen to persist.

from the 1990 Standard and Poor’s 500. They estimate the relation using both OLS and IV estimations. However, they find a more successful OLS estimation than the IV estimations. Using a three-equation IV approach they find a negative relationship between board size and firm performance and a weak evidence for a curvilinear relationship. They also find that the empirical results are sensitive to minor changes in the specification of the overall model and first-stage regressions, thus, the results obtained by using simultaneous equations must be interpreted cautiously and one should not be indifferent towards the ordinary least squares estimates.

Dalton et al. (1998) explore the relationship between board composition, board leadership structure (duality), and firm financial performance. They apply the meta-analytic technique on 54 empirical studies of board composition and 31 empirical studies of board leadership. They find no significant relationship of either board composition or board leadership structure with firm performance. Thus, their finding provides support for neither the agency nor stewardship theories on which they ground their research.

Millstein and McAvoy (1998) examine the relation between a professional board and returns to investors. By professional board is meant an active and independent board. They recognize the existence of an intense debate to the extent of active and independent board’s influence on performance. They make an attempt to address this debate by empirically testing the relationship between the board and firm performance. They utilize a sample of 154 large companies for a time period of 5 years, 1991-1995, with the dependent variable being the excess return (ER) a variant of Stern Stewart’s Economic Value Added. The results are found to convey a significant relationship between an active, independent board and firm performance. However, the authors raise a caution that the results demonstrate a correlation but no causation and thus the results should be carefully interpreted. Nevertheless, the results portraying a significant relationship between the board governance and firm performance cannot be dismissed.

Muth and Donaldson (1998) test the relation between board independence and firm performance based on two competing theories: agency theory and stewardship theory. The construct, board independence is produced by combining six attributes of board
structure which are: leadership structure, proportion of outside directors, board size, level of interest alignment between directors and shareholders, average director age and average tenure. They utilize a sample of 145 Australian firms and on analyzing the data they find that more independent boards lead to lower shareholder returns and a lower rate of growth in sales. This leads them to conclude that they find support for the stewardship theory and not the agency theory. Thus, posing a challenge to the agency theory predictions of board’s monitoring role having a positive relation with firm performance.

Fuerst and Kang (2000) examine whether the board characteristics, such as board composition and board size are related to a firm’s operating performance and stock price. They study. They determine the dependent variable by using the Ohlson’s (1995) residual income valuation framework. The analyses based on a sample of 947 firms on NYSE, AMEX, and NASDAQ exchanges, for the years 1992 and 1993, reveal that greater representation of outside directors on the board as having a negative impact on the firm’s equity value, after controlling for outside director ownership.

Dahya and McConnell (2003) investigate the argument that greater outside representation on board will lead to different and better decisions by the board. They examine the impact of board composition on the task of appointment of CEO. Their study spans a time-period of 11 years, 1989-1999, for a sample of 700 UK companies. They find that the increase in representation of outside directors on the board is likely to influence board decisions, at least as regards the appointment of inside or outside CEOs. They find that a company with more outsiders is prone to appoint an outsider CEO. Also, they find that market responds better to a company’s decision of having an outsider CEO. Thus, it can be concluded that investors appear to perceive that the boards with substantial outside director representation make better decisions.

Coles et al. (2004) examine the effect of board size on Tobin’s q, and the effect of board composition on Tobin’s q. To investigate the issue their starting sample is the 2001 version of the Execucomp database. They collect the data over a period of seven years, from 1992 to 1998, and obtain a final sample of a sample of 2740 firm-year observations. They find that, for firms having greater advising requirements, the Tobin’s q increases with increase in board size. In case of firms where the firm-specific
knowledge of insiders is relatively more important, Tobin’s q increases with increasing fraction of insiders in a firm.

Andres et al. (2005) analyze the impact of board composition on firm value. They carry out their study for companies belonging to ten countries. Out of the ten countries three are from Anglo-Saxon corporate system and seven are from continental system. By carrying out their research in multiple countries they broaden the existing research which has mostly focused on the Anglo-Saxon corporate system. Also, they establish that whether the inefficiencies regarding the board of directors for companies in the US also holds for the firms relying more on internal rather than external systems of corporate control. Their sample accounts for 450 companies. The analysis does not reveal any robust relationship between the percentage of outside directors (a proxy for board independence) and firm value.

Filatotchev et al. (2005) investigate the effects of ownership structure and board characteristics on performance in large, publicly traded 228 firms across different industries listed on the Taiwan Stock Exchange (TSE) that are controlled by founding families. They test the effect of the share ownership of outside institutional investors, the share ownership of foreign institutional investors, the extent of board independence and the share ownership of board members in firm performance. Their results reveal that board independence from founding family and board members’ financial interests have a positive impact on performance.

Klein et al. (2005) analyze the relationship between corporate governance and firm value in Canada. They utilize a sample of 263 firms. To analyze the impact of corporate governance on firm performance they use corporate governance index. The findings reveal that the total governance index has no significant impact on firm performance. However, when they analyze the corporate governance sub-indices they find that they have significant relationship with firm performance. They find that the sub-indices measuring effective compensation, disclosure and shareholder rights practices enhance performance. To this they raise a concern regarding measuring corporate governance at an aggregate level by indices and the weighting schemes utilized by the index developers. They, thus, highlight the need for financial analysts to carefully examine the
issues involved while developing indices and establishing their link with firm performance.

Further they divide their sample, based on the ownership criteria, into family owned firms and widely held firms. In the family owned firms they report a negative association between board independence and firm performance. For this finding they advance the possible explanations that firstly, in family firms the alignment of ownership and control is tighter, thus services provided by outside directors become unnecessary. Secondly, the outside directors may lack both the knowledge and the need to contribute towards long term success of the firm, thus, lowering the efficiency of the company by distracting the managers and making them focus more on short term goals. They find no evidence that governance practices are endogenous.

Petra (2005) examines the issue of outside independent directors strengthening corporate boards by means of a conceptual study. He considers five areas of the boards of directors which include, board composition, CEO duality, audit committees, compensation committees and nominating committees. He concludes that outside independent directors do appear to strengthen corporate boards though they are not found to have any relation with performance of a firm.

Garg (2007) investigates the influence of percentage of independent directors on firm performance. A sample of 164 companies for six financial years from 1997-98 to 2002-03 is used for analysis. The performance variables used are Tobin’s q, ratio of operating income (EBIT) to assets, ratio of sales to assets and market-adjusted stock price returns (MASR). The analysis reveals a mixed relation of board independence with firm performance. Further, he finds that board independence and firm performance are not endogenously determined.

Lefort and Urzua (2008) investigate the relationship between board composition (proportion of independent directors) and firm performance in context of firms that have high ownership concentration that is in the Chilean context. They use a panel data of 160 companies for 4 years for the time period 2000 to 2003. Taking endogeneity into consideration their analysis reveals that the proportion of outside directors positively and significantly affects firm performance.
McCabe and Novak (2008) carry out a qualitative study to understand the role of the independent director and the significance of their role in relation to the composition of the board of directors. They use a grounded research approach to interview 30 directors of Australian public-listed companies. They find that the directors who were interviewed believed that independent directors do have a role to play on the board and this role has the potential to be of significance to the firm. Further, the independent directors being in majority provide a safeguard for a balance of power between the board and the management. By means of the interviews, they also reveal the directors viewpoint that independence does not have a significant influence on sustainable performance.

Pombo et al. (2009) examine the relation between board structure and firm value in Colombia, Latin America. The elements of board structure under study include large shareholders, board interlocks and outside directors and the performance variable used is Tobin’s q. The sample for analysis comprises of 75 equity-issuing corporations in Colombia during the time period 1998-2004. The results reveal that board interlocks and high ownership concentration of the top four blockholders have a positive effect on firm value.

Ramdani and Witteloostuijn (2010) investigate the impact of board independence on firm performance by utilizing quantile regression methods. The dependent variable is average ROA for time period 2001-2002. The data is collected for firms belonging to four East-Asian countries: Indonesia, Malaysia, South Korea and Thailand for the years 2001 and 2002. They explore the impact of board independence at different levels of firm performance i.e. low, medium and high. The results obtained for the study indicate that the board independence is effective in average-performing firms and is found to have no impact in low and high performing firms.

Kamardin and Haron (2011) examine the relation between internal corporate governance mechanisms and board performance in monitoring roles in the Malaysian context. They recognize that in emerging economies which are largely characterized by weak market control, the internal corporate governance mechanisms of the board of
directors and directors’ shareholding have a vital role to play. They find that non-independent non-executive directors are positively related to board’s monitoring roles.

Pombo and Gutierrez (2011) investigate the relation of board structure elements, the proportion of outside directors on firm performance measured by the return on assets, in Colombia. The environmental context is one of no regulation and voluntary adoption of corporate best practices. The number of firms forming the sample under study is 335 and the time period of the study ranges from 1996–2006. They find a positive and significant relation between the ratio of outside directors and a firm’s return-on-assets.

Arouri et al. (2014) investigate the relationship between board composition and firm performance. The time of their study is the year 2010. They utilize a sample of 58 listed banks of the Gulf Co-operation Council. They find that board composition has no significant association with the firm performance.

The research linking board composition to firm performance does not lead to a unanimous conclusion. Firstly, a sizeable number of studies report a lack of relationship. Secondly, even though majority of the studies do report a significant relationship between board composition and firm performance, there is a lack of consensus as regards the direction of this relationship.

Study examining the influence of board meetings on firm performance

Vafeas (1999) investigates the relation between board meetings and firm performance. He contributes to the line of research that considers board attributes as an important element in determining firm outcomes. He explores intensity of board activity as an alternative, value-relevant board attribute and examines its association with corporate performance. Utilizing a sample of 307 firms over a period ranging from 1990-1994, his analyses reveals that board meetings are inversely related to firm value and the boards that meet more frequently are valued less by the market. However, analyzing the issue of board meetings further his analyses reveal an important finding that the operating performance of a firm increases following years of increased frequency of board meetings. He offers a conclusion to this finding that frequent board meetings are one way the board responds to tough years of operation.
Studies examining the influence of board size on firm performance

Yermack (1996) examine the issue of board size and firm performance. He uses a sample of 452 large U.S. industrial corporations for eight years, 1984 to 1991, with sample observations of 3438 firm-years. Tobin’s q is used as an approximation of market valuation, he finds an inverse relation between board size and firm value. The result is robust to various controls for company size, industry membership, inside stock ownership, growth opportunities, and alternative corporate governance structures. The negative relation between board size and firm value is found to attenuate as boards become large, implying that the greatest incremental costs arise as boards grow in size from small to medium. He thus finds evidence to the theory that as boards grow larger the problems of poor communication and decision-making sabotage the effectiveness of the decision-making groups.

Barnhart and Rosenstein (1998) investigate the combined effects of ownership structure and board mechanisms on corporate performance. They find a more successful OLS estimation than the IV estimations. Using a three-equation IV approach they find a negative relationship between board size and firm performance. They also find that the empirical results are sensitive to minor changes in the specification of the overall model and first-stage regressions, thus, the results obtained by using simultaneous equations must be interpreted cautiously and one should not be indifferent towards the ordinary least squares estimates.

Dalton et al. (1999) carry out a meta-analysis of 131 samples to establish the relationship between size of the board of directors and firm performance. They highlight the lack of empirical attention paid to the board size and also highlight that there has been no attempt to build consensus regarding the direction of relationship between board size and firm performance. Their analysis reveals that board size has a positive influence on firm performance and the relationship is more pronounced for firms that are smaller in size.

Coles et al. (2004) examine the effect of board size on Tobin’s q. To investigate the issue their starting sample is the 2001 version of the Execucomp database. They collect the data over a period of seven years from 1992-1998, and obtain a final sample of a
sample of 2740 firm-year observations. They find that for firms having greater advising requirements the Tobin’s q increases with increase in board size. Thus, whether board mechanisms impact performance or not is contingent upon the needs of the firm.

Andres et al. (2005) analyze the impact of board size, composition and functioning on firm value. They carry out their study for companies belonging to 10 countries. Out of the ten countries 3 are from Anglo-Saxon corporate system and 7 are from continental system. By carrying out their research in multiple countries they broaden the existing research which has mostly focused on the Anglo-Saxon corporate system. Also they establish that whether the inefficiencies regarding the board of directors for companies in the US also holds for the firms relying more on internal rather than external systems of corporate control. Their sample accounts for 450 companies. Analysis of the data reveals negative impact of board size on firm value. This effect persists after controlling for alternative definitions of firm size, board composition and internal functioning, country effect, industry effect and measurements of performance.

Garg (2007) investigates the influence of board size on firm performance. A sample of 164 companies for six financial years from 1997-98 to 2002-03 is used for analysis. The performance variables used are Tobin’s q, ratio of operating income (EBIT) to assets, ratio of sales to assets and market-adjusted stock price returns (MASR). The analysis reveals a negative relationship between board size and firm performance. Further, he finds that board size and firm performance are endogenously determined.

Belkhir (2009) investigate the relation between board size and firm performance in the banking industry. The study is carried out utilizing a sample of 174 bank and savings-and-loan holding companies for a time period of 8 years (1995-2002). They measure the firm performance through Tobin’s q and ROA and control for bank size, board leadership structure, CEO tenure, insiders’ stock ownership, and board independence. The analysis reveals a positive relation between size of the board and firm performance in contradiction to the theories predicting smaller boards being more effective.

Essen et al. (2012) investigate the relation between board attributes and firm performance for firms in the Asian context. With an aim to improve understanding of the role of the board in publicly listed firms in the Asian context, they on one hand, try
and ascertain the relationship between ownership structure and board attributes and on the other establish the mediating relationships between board attributes, strategic decisions, and ultimately, firm financial performance. They carry out a meta-analysis on a database of 86 studies covering 9 Asian countries. On the whole, the meta-analysis provides a conclusion that the board attributes that epitomize good governance practices do not seem to matter much in Asian firms. It is found that board size does not have a statistically significant direct effect on corporate performance.

The above review largely indicates the board size to have a significant influence on firm performance. However, there is lack of unanimity in the direction of relationship between board size and firm performance.

Studies examining the influence of ownership structure on firm performance

Demsetz and Lehn (1985) investigate the determinants of ownership structure and the impact of ownership structure on firm performance. They utilize a sample of 511 US from major sectors of the U.S. economy, including regulated utilities and financial institutions. Upon analyzing the data it is found that the firm size, instability of profit rate, whether or not the firm is a regulated utility or financial institution, and whether or not the firm is in the mass media or sports industry influences a firm’s ownership structure. However, they find no significant positive relationship between ownership concentration and accounting profit rate.

McConnell and Servaes (1990) examine the relation between ownership structure and firm performance measured by Tobin’s q. They analyze a sample of 1,173 firms for 1976 and 1,093 firms for 1986 listed on either the New York Stock Exchange (NYSE) or the American Stock Exchange (AMEX). Their analyses reveal a significant positive relation between fraction of shares owned by institutional investors and firm performance. They further find a significant curvilinear relation between Q and the fraction of shares owned by corporate insiders. At low levels of insider ownership, the relation is strongly positive while at high levels of insider ownership, the relation between Q and insider ownership is negative, but the downward pull is relatively muted. However, they find no significant correlation between Q and the presence of a block stockholder or the fraction of equity owned by blockholders. Their results are in
consonance with the hypothesis that corporate value is a function of the structure of equity ownership.

Oswald and Jahera Jr. (1991) examine the relationship between firm performance and ownership structure. The firm performance is measured by excess stock returns and ownership structure is measured by the percentage of stock held by directors and officers. The results reveal a significant relationship between ownership and performance, controlling for size differences. The researchers’ analysis shows higher excess returns for firms with higher levels of inside ownership. According to them a higher level of inside ownership connotes improved decision-making resulting in higher earnings and dividends which is in conformity with the view that as an individuals’ interest in a company grows, it proves beneficial to the long term performance of that company.

Prowse (1992) explores the aspect of corporate ownership in Japan in the mid 1980s. He identifies two sets of firms in Japan, first set is the independent firms and the second set is the firms belonging to corporate groups (keiretsu). The sample consists of 143 firms from the mining and manufacturing sector of the economy. He divides the sample into two sub-samples independent and keiretsu firms. The ownership concentration is measured as the percentage of total outstanding shares owned by top 5 shareholders. The analysis reveals no significant relationship between ownership concentration and accounting profit rate for either of the sub-samples, where in both cases the coefficient on ownership concentration is positive, but insignificant (and, for keiretsu firms, particularly small).

Barnhart et al. (1994) investigate the impact of board composition and managerial ownership on firm performance. They recognize that board composition and managerial ownership may be endogenous to performance. Thus, they utilize instrumental variable (IV) approach to obtain consistent estimators. The performance of the firm is measured as the ratio of market to book value of common stock equity. The ordinary least squares (OLS) estimates that they obtain indicate a significant relationship between board composition and firm performance. Several of their IV models suggest a curvilinear relation between board composition and firm performance. Their initial data-set is
Standard and Poor’s 500. They include the managerial ownership measured as the percentage of shares owned by officers and directors as a group and institutional holdings of common stock. The final sample comprises of 369 firms. The results suggest that managerial ownership significantly influences performance.

Agrawal and Knoeber (1996) explore a range of mechanisms to control agency problems between managers and shareholders. They utilize a sample of 383 large U.S. firms to examine the empirical relation between the control mechanisms and firm performance as measured by Tobin’s q. The control mechanisms include insider shareholding, institutional shareholdings, shareholdings of large blockholders, representation of outsiders on the board of directors, use of debt, use of the external labor market for managers, and the takeover activity. They first investigate each mechanism separately thereby ignoring any interdependence among them. They find that insider shareholding is cross-sectionally related to firm performance. Further, when they examine all of the mechanisms together the empirical relation between insider shareholdings and firm performance is seen to disappear but the relation of performance with board composition, debt policy, and corporate control activity is found to remain.

Kochhar and David (1996) explore the relationship between institutional investors and firm innovation. The sample comprises of 135 US firms. Their results indicate that the presence of institutional investors does not foster short term behavior in the firm managers. They suggest that the institutional investors look for long-term benefits from their investments. Thus with the large ownership providing the institutional investors the incentive to contribute the possession of required resources and expertise helps them guide the managers and influence the firm’s innovation.

Xu and Wang (1999) explore the relation between ownership structure and firm performance in the Chinese context. The three main groups of shareholders in Chinese corporate sector – the state, the legal persons (institutional investors) and the individuals on an average accounting for approximately 30% of the stock. The results reveal a positive and significant correlation between ownership concentration and profitability. Further, the firm’s profitability is found to be positively correlated with the fraction of legal person shares. On the contrary, they find the state ownership to be negatively correlated to firm performance.
Claessens and Djankov (1999) investigate the relationship between ownership structure and corporate performance. They carry out their research study in the context of Czech Republic utilizing a sample of 706 firms over a period ranging from 1992 to 1997. The authors find that concentration of ownership, which they measure as the share of equity held by top 5 investors in a firm, is significantly and positively related to firm performance. However, their findings are weakly robust to the inclusion of certain control variables.

Thomsen and Pedersen (2000) investigate the impact of ownership structure on company performance in 435 of the largest European companies. They use three performance variables: market-to-book value of equity, return on assets, and sales growth. They find a positive effect of ownership concentration on shareholder value (market-to-book value of equity) and profitability (asset returns), but the effect levels off for high ownership shares. Further, they find that the identity of large owners has important implications for their objectives and the way they exercise their power. The large owners included in the study are: institutional investors, family owners, governments and corporate owners. The effect of ownership concentration is also found to depend on owner identity whether they are members of the founding family, banks, institutional investors, other non-financial companies or governments. They find that institutional ownership is positively associated with high market-to-book values, while ownership of family, another company, or government has a negative influence on performance. For the asset returns the effect of ownership of various identities is less strong and not significant with the exception of government ownership which has a significantly negative association. In contrast, they find the sales growth to be higher when the largest owner was a family or another company.

Fuerst and Kang (2000) examine whether governance and ownership characteristics are related to a firm’s operating performance and stock price. They study the various governance characteristics such as: board composition, board size, and CEO tenure, and ownership of various stakeholders: the CEO, corporate insiders, outside directors, external blockholders, and controlling stockholders. They determine the dependent variable by using the Ohlson’s (1995) residual income valuation framework. The analyses based on a sample of 947 firms on NYSE, AMEX, and NASDAQ exchanges.
for 1992 and 1993 reveals that corporate governance characteristics and ownership distributions significantly influence a firm’s performance and share values. Specifically, they find that the increased ownership of outside directors has a positive relation with the firm’s operating performance and market value. As regards the blockholdings are concerned they find that the blockholdings of external parties (ownership greater than five percent by those other than the CEO, executives, and directors) have a negative impact on the firm’s operating performance.

Lins (2003) investigates the relation between management stock ownership and large non-management blockholder share ownership and firm value. He carries out his study on a sample of 1433 firms belonging to 18 emerging markets. The regression analyses reveal that management group control in excess of its proportional ownership is negatively related to Tobin’s q in emerging markets. Further he finds that the managerial control in the 5% to 20% range is also negatively related to Tobin’s q. He provides a reason for these results that the investors discount firms with potentially severe managerial agency problems resulting from misaligned incentives and managerial entrenchment. The analyses concerning the large non-management blockholders reveals when a larger non-management blockholder is present, managerial control in the 5% to 20% range does not affect firm value. Additionally the results show that large non-management blockholdings are positively related to Tobin’s q values. As far as the influence of level of shareholder protection in a country is concerned, it is found that when managers have control rights that exceed their proportional ownership, firm values are significantly lower in countries with low shareholder protection. The results also divulge that the relation between large non-management blockholders and value is significantly more positive in low protection countries. The findings of the study can thus be summarized as that the external shareholder protection mechanisms play a role in restraining managerial agency costs and further these large non-management blockholders may act as a substitute for the missing institutional governance mechanisms.

Filatotchev et al. (2005) investigate the effects of ownership structure and board characteristics on performance in large, publicly traded 228 firms across different
industries listed on the Taiwan Stock Exchange (TSE) that are controlled by founding families. They test the effect of the share ownership of outside institutional investors, the share ownership of foreign institutional investors, the extent of board independence and the share ownership of board members on firm performance. Controlling for possible endogeneity, they find that share ownership by institutional investors, and foreign financial institutions in particular, is associated with better performance.

Bhabra (2006) investigates the relation between stock ownership and firm value in the New Zealand context. The sample constitutes of 54 publicly listed firms with data over 1994–1998 listed on the New Zealand Stock Exchange (NZSE). He finds that the relationship is positive for insider ownership levels below 14% and negative for levels of insider ownership between 14% and 40%. As the insider ownership levels become greater than 40% the results are found to be in conformity with the alignment of interest hypothesis. The results obtained pass the robustness Test, as the results are found to be similar for several alternative measures of firm value (Tobin’s q, market to book ratio and return on equity). Further, the results are also found to be consistent when endogeneity is taken into consideration.

Kapopoulos and Lazaretou (2007), motivated by the lack of research establishing relationship between ownership structure and firm performance in Greek firms, examine whether variations across firms in observed ownership structures result in systematic variations in observed firm performance. To carry out their research study to assess the relation between the structure of ownership and firm performance using data for 175 Greek listed firms. The firm performance is measured using Tobin’s q and the accounting profit rate. They consider two measures of ownership: the fraction of shares owned by management and the fraction of shares owned by important investors. The data analysis reveals a linear positive relationship between firm performance and ownership structure. Both measures of ownership, managerial shareholdings and important shareholdings, positively influence Tobin’s q. Together with these findings they also find evidence for the existence of endogeneity of ownership structure that is profitability is a positive predictor of ownership structure measures.
The studies above exploring the role of ownership structure find it as an important governance mechanism that affects firm performance. The researchers find the various ownership mechanisms as insider ownership, institutional investors, concentration of ownership as measured through blockholdings, as significantly influencing firm performance.

*Studies examining the influence of CEO on firm performance*

Hambrick and Mason (1984) in their conceptual paper identify certain propositions linking managerial backgrounds and organizational outcomes. They first discuss the managers’ age; in this they argue that firms with young managers are more inclined to pursue risky strategies than firms with older managers. Drawing from this argument, they propose that firms with young managers will experience greater growth and variability in profitability from industry averages than will firms with older managers. Further, regarding the education of managers, they advocate that the amount of education indicates the skill and knowledge possessed by an individual. Based on the consistent finding of various researchers that the level of education is positively related to receptivity to innovation, they propose that the amount of education will be positively associated with innovation. They call for a systematic research on the top management and its implications for firm outcomes.

Finkelstein and Hambrick (1990) use the ‘upper echelons’ perspective which considers the organizational outcomes as reflections of its leaders, the top management team. Using this perspective, they investigate the relationship between managerial tenure and organizational outcomes such as strategic persistence and conformity between strategy and performance. Utilizing a sample of 100 firms in the computer, chemical and natural-gas distribution industries, over a period of five years (1978-1982) they find that executive-team tenure has a significant impact on strategy and performance of a firm. They find that firms that have long tenured managerial teams follow more persistent strategies, and yield performance that is around the industry average, while short-tenure teams are associated with performance levels that are either much higher or lower than the industry average.
Baliga et al. (1996) examine the relation between duality and firm performance. They consider multiple measures of firm performance: the announcement effects, accounting measures such as Return on Assets, Return on Equity, operating cash flow divided by total assets and operating cash flow divided by total sales and long term measure, Market Value Added of the Stern Stewart and Company. Their sample comprises of Fortune 500 companies for the year 1990. The data is used for years ranging from 1980-1991. They find little evidence of a relationship between a change in duality status and change in performance. Further, they do not find the market reacting to the changes in a firm’s duality status. Lastly, they find a weak relationship between duality status and a firm’s long term performance. They conclude their finding that duality does not has any significant effect on firm performance as a mere scape-goat phenomenon and just a symbolic gesture by the board to ‘signal’ that it effectively carries out its corporate governance role. They advice that a board can function effectively as the ‘center of control’ if it recognizes that non-duality is not in itself a solution to the firm’s problems and that there exists no substitute to designing and implementing effective internal control mechanisms.

Fuerst and Kang (2000) examine the relationship between CEO tenure and duality with firm’s operating performance. The data analysis of a sample of 947 firms on NYSE, AMEX, and NASDAQ exchanges for 1992 and 1993 reveals that the CEO characteristics of tenure and duality are seen to be negatively associated with firm’s operating performance.

Barker III and Mueller (2002) investigate the relationship between a firm’s CEO characteristics and its R&D spending. The sample for analysis comprised of 172 firms from the Business Week’s 1000 lists for 1989 and 1990. The independent variables are: CEO career experience, CEO age, CEO stock ownership, CEO tenure, CEO education level and the dependent variable is R&D spending. The results reveal that the CEO characteristics predict a significant proportion of R&D spending. They find that a firm’s R&D spending is greater if its CEO is younger, has a greater wealth invested in firm’s stock and significant career experience in marketing or engineering/R&D. However, there is no significant relation found between a CEOs education level and R&D spending.
Ferris et al. (2003) investigate the issue of multiple board appointments of directors and firm performance. Utilizing a sample of 3190 firms they find no evidence as predicted by the Busyness Hypothesis that multiple board appointments have a negative impact on firm performance. Thus, they find that multiple directorships cause directors to shirk their responsibilities.

Fich and Shivdasani (2006) investigate the impact of number of directorships held by outside directors serving on several boards and firm performance. They analyzing data obtained from 508 US companies for a 7-year period from 1989 to 1995 and find that firms that have majority of the outside directors holding 3 or more board seats have a significantly lower firm performance than firms in which the majority of outside directors hold less than 3 board seats. Together with this finding they also find that the outside dominated boards are more likely to remove CEOs for poor performance than inside-dominated boards. They conclude that the extent to which the outside directors are busy can be an important determinant of the effectiveness of boards dominated by outsiders.

Bhagat et al. (2010) investigate whether CEO education influences firm performance. They recognize that it is difficult to measure a CEO’s ability. They overcome this difficulty by using objective and easily measurable measures such as CEO education to establish relationship between CEO ability and firm performance. They use a sample of the largest 1500 US firms comprising the Standard and Poor’s super composite 1500 for the time period 1992-2007. The final sample that they obtain comprises of 14,594 CEO-years. They find that CEO education does not have a significant impact on the long-term performance of a firm.

Ramdani and Witteloostuijn (2010) investigate the impact CEO duality has on firm performance by utilizing quantile regression methods. The dependent variable is average ROA for time period 2001-2002. The data is collected for firms belonging to four East-Asian countries: Indonesia, Malaysia, South Korea and Thailand, for the years 2001 and 2002. They explore the impact of duality, at different levels of firm performance i.e. low, medium and high. The results obtained for the study indicate that the CEO duality is effective in average-performing firms and is found to have no impact in low and high performing firms.
Geletkanycz and Boyd (2011) investigate CEO outside directorships and its impact on firm performance in varying contexts. By means of their study they address the debate between agency scholars and embeddedness scholars. The agency theorists consider CEO outside directorships as distractions that come in conflict with the CEO’s internal responsibilities. The embeddedness scholars consider CEO outside directorships as a means to secure information and resources. The study proposes and tests a mid-range contingency based model. They argue that whether a CEO’s outside directorships will prove advantageous or not for a firm depends on its context: industrial/environmental and strategic. The industrial contexts include the industry growth, industry concentration and the strategic context includes firm’s diversification. They find firstly, in conformity with their hypothesis that CEO outside directorships will prove more positive in contexts of low industry growth, which are characterized by higher competitive heterogeneity and instability, than contexts of high industry growth. Secondly, they find that CEO outside directorships provides greater benefit in contexts of low concentration than in high concentration scenario. Thirdly, they also find support for the hypothesis that the utility of CEO outside directorships will have a greater influence on firm performance in contexts of less diversification. They thus conclude that CEO outside directorships cannot be held to be uniformly beneficial or detrimental to the firm success. They are instead dependent on the contexts where the potential gains of CEO outside board service are in conformity with the crucial strategic and environmental elements facing the firm and its leadership.

Kamardin and Haron (2011) examine the relation between internal corporate governance mechanisms and board performance in monitoring roles in the Malaysian context. They recognize that in emerging economies which are largely characterized by weak market control, the internal corporate governance mechanisms of the board of directors and directors’ shareholding have a vital role to play. They find that the presence of directors on multiple boards is negatively related to board’s monitoring roles. Based on their results the authors advise the regulators to pay attention to multiple directorships.

Pombo and Gutierrez (2011) investigate the relation between the degree of board interlocks and firm performance measured by the return on assets, in Colombia. The
environmental context is one of no regulation and voluntary adoption of corporate best practices. The number of firms forming the sample under study is 335 and the time period of the study ranges from 1996–2006. They find a positive and significant relation between the degree of board interlocks with a firm’s return-on-assets.

Yang and Zhao (2012) examine whether dual leadership is a more effective model than separate leadership in dynamic environment. They choose 1979-1998 as their sample period. Their sample comprises of 1927 firms, out of these 1181 firms have a dual leadership and 746 firms have a stable separate leadership. Their data analysis reveals that firms with dual leadership experience a larger and significant increase in Tobin’s q as compared to non-duality firms.

In the review of studies listed above the researchers test the effect of various characteristics of CEO or top management team: age, education, tenure, experience, multiple directorships on firm performance. The theory has emphasized upon the importance of these characteristics on firm outcomes. Empirical tests of these characteristics, as seen above, also report significant results. However, the results are found to be conflicting.

STUDIES EXAMINING THE INFLUENCE OF DEPLOYMENT OF RESOURCES BY MEANS OF MANAGEMENT COMPETENCE AND GOVERNANCE ON FIRM PERFORMANCE

The studies below examine the influence of deployment of resources by means of management competence and governance on firm performance.

Hill and Snell (1988) establish the relation between governance, corporate strategy and firm performance. Specifically, they establish the relation between stock concentration, management stockholdings, and outsiders on the board, on firm innovation strategy and subsequently on firm performance. The final sample comprises of 95 technological intensive firms. The data analysis reveals that stock concentration is positively associated with R&D expenditure (innovation strategy) and also with firm performance. However, the management stockholdings are found to have no significant relation with the strategy or the firm performance. Further, the analysis reveals that innovation strategy and presence of outsiders on the board have a positive and significant
association with firm performance. Thus, they suggest that governance has an influence on firm performance though strategic choice and stock concentration and outsider representation on board can help mitigate the conflict between stock-holder and management.

Baysinger et al. (1991) examine the impact of board and ownership structure on the company’s R&D investment. The study takes into consideration the impact of the percentage of outside directors on a corporation's board of directors, the concentration of equity ownership, and the roles of individual and institutional stockholders on the company's R&D investment. The data used in their study comprised of 176 Fortune 500 companies. The results divulge that the percentage of inside directors on the board and concentration of ownership in the hands of institutional investors are positively related to R&D spending in a firm.

Lee and O’Neill (2003) examine the impact of ownership structure on R&D investments in the United States and Japan. They test the applicability of both agency theory and stewardship theory. They use a sample of 1044 US firms and 270 Japanese firms. They find that though Japanese firms have more concentrated ownership and R&D investments, the stock concentration is positively related to investments in R&D in the United States but is unrelated to investments in R&D in Japan. The authors highlight that the findings are in conformity with the assertion that agency theory reflects U.S. firms adequately, while stewardship theory represents Japanese firms adequately.

Makadok (2003) explores the influence of resource and governance based issues in securing resource advantage. According to him resource advantage is secured when managers’ expectation of future value of the resource is accurate (managerial competence) and the intensity of agency problems that can cause the managers interests to diverge from the shareholders’ mitigated (governance). He argues that while both managerial competence and governance have been studied but they have mostly been studied in isolation and not jointly. Building propositions through the course of this conceptual study, he advocates that the presence of agency problems can lead to under-investment in resources. And these under-investments can be more severe for
organizations lacking managerial competence. Thus, he suggests two levers that help create advantage for a firm: the severity of the agency problems, or improving the accuracy of managers’ expectations. He shows these two levers to be complimentary to each other and that they work better when used together, rather than in isolation. Thus, he justifies that the firms that have extraordinary performance also have both extraordinary competence and extraordinary governance. He further recommends that the studies should examine the agency and governance issues collectively with the resource based issues to gain better understanding on the creation of competitive advantage.

Berrone et al. (2005) investigate the relationship between presence of large shareholders in the ownership structure of firms and R&D investment. The data is utilized for 3,638 Spanish firms and spans for a period of five years, from 1996 to 2000. They highlight the lack of consensus regarding the effect of ownership concentration on a firm’s R&D investment. In their research they endeavor to reconcile the differences. They include a largely neglected variable in previous studies, that is, the number of blockholders which is relevant for understanding corporate innovation strategies. They find that bank blockholders have a negative, while non-financial corporations have a positive impact on R&D investments. Further, they find a systematic negative relationship between the number of blockholders and R&D investment.

Kor and Mahoney (2005) examine the effects of the dynamics, management and governance of R&D and marketing resource deployments in firm level economic performance. First, they focus on the history of dynamics in resource deployments leading to development and maintenance of innovation and marketing capabilities. Second, they focus on the role of top management experience in effective deployment of R&D investments. Lastly, they focus on the guardianship roles of institutional investors on R&D and marketing investments. They carry out their research study on sixty technology- based entrepreneurial firms that completed an IPO in medical surgical and dental instruments industry. The results reveal that marketing capabilities have a positive and significant impact on competitive advantage but R&D investments do not. Further, they find that an experienced top management interacts with R&D investments to generate better economic returns but does not seem to have any significant
interaction impact with marketing investments. As regards governance, they find institutional investors do solve the agency problems by helping better deployment of marketing resources that are subject to agency problems more than R&D investments, thereby leading to better economic performance. Thus, by means of their study they highlight not only the importance of level of investment in resources, but also the importance of the management and governance of these resources.

Kor (2006) explores the reasons for differences among firms’ investment in R&D. She uses the insights from upper-echelons, resource based view and agency theories to ascertain the effects of top management teams and board composition on R&D investment intensity of a firm. She stresses that while the upper-echelon and resources based perspectives highlight the importance of managers’ firm-specific knowledge, collective confidence, and top management team diversity on a firm’s decision to invest in R&D. The agency theory lays emphasis on the presence of an independent board in regulating managerial actions and thereby addressing the problem of underinvestment in R&D. She, thus, examines whether management teams and board governance play unique roles in shaping a firm’s R&D strategy. The data analysis reveals that the presence of founders in the top management team and the separating of the CEO and board chairperson duties are associated positively with R&D investment intensity. On the other hand the top management team tenure is negatively and nonlinearly related to R&D investment intensity. The hypothesized positive relationship between the ratio of outsiders on the board and R&D investment intensity, however, is found to be not significant.

Edmans (2009) explores the influence of outside blockholders on a firm’s investment decisions. He highlights that blockholders, with both the incentives and control rights to gather costly information about the firm's fundamental value and to intervene, encourage managers to invest for long-run growth rather than short-term profits. Further, he finds that even if blockholders cannot intervene in a firm's operations, they can induce managers to undertake efficient real investment through their informed trading of the firm's shares. As the blockholders collect fundamental information and impound it into the share prices, they thereby encourage managers to undertake investment that increases long-run value even if it reduces interim profits.
blockholders, thus, provide a potential solution to managerial myopia. Based on this he
draws the corollary that a key cost of the dispersed ownership is myopia.

Wang et al. (2009) explore the employee governance mechanisms and their influence
on the firm-specific resources generation of economic benefits. They explore both
economic and relationship based governance measures that might mitigate the firm-
specific resource’s (human capital) under investment problem. According to them, the
under investment problem comes in as the deployment of firm specific knowledge
requires the key employees to make specialized human capital investments that are not
easily redeployable to other settings. They carry out their study utilizing data on 211
manufacturing firms from the year 1994 through 2002. The independent variables of
relationship based governance measures are operationalized using firm-employee
relationship measure and economic based governance measures through employee stock
owningships. The firm specific knowledge sources are represented through patent
citation and weighted count measure data. Firm’s economic performance is
operationalized using Tobin’s q. The results obtained show that effective use of
governance mechanisms enables a firm to resolve the problem of employee
underinvestment and further leading the firm to achieve greater level of firm
performance.

Essen et al. (2012) find the boards to have an indirect influence on firm performance.
They find that the relationship between board structure and composition and firm
performance is mediated by the revealed strategic preferences of Asian firms
specifically by the level of R&D investment.

Choi et al. (2012) examine the association between ownership concentration and
technological innovation in an emerging economy. They test the impact of ownership
concentration in general and also the impact of various ownership categories viz. state
ownership, insider, institutional investors and foreign ownership. The sample comprises
of 301 firms which were selected from firms publicly listed on the Korean Stock
Exchange (KSE). The concentrated ownership, in general, is not found to have any
relationship with technological innovation. However, specific ownership types,
institutional investors and foreign ownership, are seen to be positively related to
technological innovation. The other ownership types under scrutiny, insider and state ownerships are found to have no significant influence.

The above review brings to light the importance of deployment in generating superior firm performance. It highlights that the mere possession of resources will not generate advantage for a firm but in addition to that it requires effective management and governance of resources that will generate advantage to a firm. Thus, it is emphasized that the existence of managerial competence and governance in synergy with the resources will lead a firm to competitive advantage.

**STUDIES RELATED TO THE INDIAN CONTEXT**

The following studies have been conducted in the Indian context, to establish the resources and the governance mechanisms that influence firm performance.

_**Studies examining the influence of resources on firm performance**_

Ethiraj et al. (2005) examine the issue of where and how capabilities emerge and how they influence firm performance. To study the importance of capabilities they use a in-depth interview data with detailed, large sample, project-level data spanning a 6-year period of a leading Indian firm in the global software services industry. They find that client-specific capabilities, which is a function of repeated interactions with clients over time and across different projects; and the project management capabilities, which are acquired through deliberate and persistent investments in infrastructure and systems, are significantly related to performance. They conclude that firm capabilities are often context-specific and not all capabilities provide the same marginal contribution to performance.

Khandekar and Sharma (2005) examine the role of human resource capability in firm performance and sustainable competitive advantage in Indian global organizations. They carry out the study utilizing a sample of 300 line or human resource managers from nine Indian and foreign global organizations, from New Delhi. The findings of the study reveal that human resource capabilities are positively correlated to firm performance. Further, they also find that human resource capability is a significant predictor of sustainable competitive advantage.
Studies examining the influence of various governance mechanisms on firm performance

Kathuria and Dash (1999) examine the relation between board size and corporate financial performance, in the Indian context. They carry out a cross-sectional study using a sample of 504 corporations belonging to 18 industries for the year 1994-95. The financial performance is measured as the return on assets. Industry dummies have been used to control for possible industry effects. The data analysis reveals that the size of the board plays an important role in enhancing firm performance. The results pertaining to the study also indicate that while the performance of the firm improves by increasing the board size, however, the contribution of an additional board member decreases as the size of the firm increases.

Sarkar and Sarkar (2000) investigate the role of large shareholders in monitoring company value in the Indian context. They find that the blockholdings by directors increase company value after a certain level of holdings. They find that the relationship between each of the different types of shareholders and company value is piece-wise linearly related. They find that beyond the threshold of 25%, barring institutional investors, the relationship between shareholding and company value is found to be positive and statistically significant. According, to them this finding implies that the concentrated ownership increases company value and they find evidence in support for the 'convergence of interest' hypothesis, rather than the 'entrenchment' and 'conflict-of-interest' hypotheses. They find that the institutional investors, such as, mutual funds and insurance companies are passive towards governance while the financial institutions are passive at a relatively low level of concentration of equity holdings. They also find that foreign equity ownership has a beneficial effect on company value. In general, their analysis supports the view that in case of emerging economies the identity of large shareholders matters in corporate governance.

Berkman et al. (2003) investigate the relationship of board composition with firm performance, in India. They find that percentage of independent directors on board (board composition) is negatively related to firm performance. On further examination, they find that the degree of negativity decreases as the percentage of insider ownership in the company increases. Their sample consists of firms grouped into two categories,
as grouped by the Bombay stock exchange into group A and group B firms, for a period of three years 2001-2003. Sample from Group A comprises of 271 firms while the sample from group B comprises of 535 firms. They carry out the analysis for the two groups separately and also after combining the two groups. They find that for all samples the results connote a negative relationship between board independence and firm performance. However, in case of group A firms, the degree of negative relationship declines as the percentage of insider ownership increases in these firms. They suggest that, until the regulators provide an environment where the independent directors can truly monitor the actions and inactions of controlling shareholders, the costs of keeping independent directors is not going to be more than its benefits.

Phani et al. (2004) investigate the role of insider ownership on the firm performance in the Indian context. A set of nine performance measures have been used to ascertain the linkage between insider ownership and performance of the firm. The data used for analysis ranges for a period of 12 years (1989-2000) and considers all manufacturing companies listed and traded on the BSE. They find that insider ownership, in the Indian context, has no influence on the performance of the firm in a majority of industries. This finding is true irrespective of the time period of the study. They raise a caveat for interpreting the results for firms where the relationship is found to be significant that the Insiders’ influence on overall performance of the firm is not conclusive since, even for a given time period, the direction of this relationship is different for different industries. They advise that the general applicability of these results is not advisable. They draw a conclusion to their findings that, in India, it is the business family’s reputation which plays an important role in allowing the family access to network benefits particularly financial resources to fund future growth. They highlight that particularly prior to 1992, the role of family and community networks gained increasing importance due to the prevalence of underdeveloped institutional and retail financial markets.

Dwivedi and Jain (2005) examine the relationship between corporate governance parameters of board size, directors’ shareholding, institutional and foreign shareholding and firm performance measured by Tobin’s q. They utilize the data from 340 large firms for a time period of 5 years ranging from 1997-2001. They find bigger boards to have a positive but a statistically weak relationship with firm performance, foreign
shareholding, which is primarily institutional, is seen to have a positive association with firm performance. However, they find a statistically insignificant relationship between Indian institutional shareholding and firm performance. They however, find public shareholding as having a negative association with firm performance.

Selarka (2005) examines impact of ownership concentration, specifically; she examines the issue of blockholders in emerging economies. Her analysis is set in the Indian context corresponding to the year 2001. Assuming ownership structure as an exogenous determinant of firm performance, her analysis brings to light the impact of insider ownership and outside blockholdings on firm value as measured by market-to-book-value ratio. The relation between insider ownership and firm performance becomes positive when insider ownership reaches 45%, 31% and 51% for the entire set of firms, group firms and the stand-alone firms, respectively. Further, investigating the role of outside blockholders she finds that the minority blockholders have no effect on firm value at lower and higher levels of ownership, but they have a strong negative effect at moderate levels of ownership. Further, the analysis reveals that there are coordination problems between the largest two outsiders in a firm, and that the problem is exacerbated if the top two outsiders are of the same type, particularly if they are private corporate bodies.

Ghosh (2006) explores the impact of board characteristics on firm performance of non-financial firms, in the Indian context. Specifically, he investigates the impact of board size, board composition and CEOs compensation on firm performance. The firm performance is operationalized using two measures, market based and accounting based. Tobin’s q is used as the market based measure while return on assets and average of return on assets, return on sales and return on equity are used as the accounting measures. He utilizes a sample of 127 manufacturing firms, for the year 2003. He finds size of the firm has a negative impact on firm performance and suggests a need to rationalize the size of the board. Further, he finds that board composition has no influence on firm performance, while CEO compensation has a positive impact on firm performance.

Kumar (2006) investigates the effect of ownership structure on firm performance in the Indian context. He utilizes an unbalanced panel of 2517 firms for the time period 1994
to 2000 and obtains 5,117 observations. The ownership structure includes the managerial shareholding, institutional investors’ shareholding, foreign investors’ shareholding, and corporate shareholding and the measure of firm performance is return on assets. The results, after controlling for observed firm characteristics and unobserved firm heterogeneity, reveal that the shareholding by institutional investors and managers affect firm performance, however, the effect is found to be non-linear.

Pant and Pattanayak (2007) investigate the impact of effect of insider ownership on corporate value in India. They use a sample of 1,833 firms, with 7,330 observations, listed on the Bombay Stock Exchange, for the period of 2000-01 to 2003-04. They group the firms into two categories based on their insider ownership (less than 51 per cent and more or equal to 51 per cent) and use three types of performance parameters: market related, accounting ratios, and agency cost measures. They find that, for all the performance measures, the firms with more than or equal to 51 per cent insider ownership, performed significantly better than the firms with less than 51 per cent insider ownership. They conclude that as the insider ownership stake increases or property rights devolve fully to insiders, the performance of the firm also improves. Further, they find in consonance with their hypothesis that the firm value increases when the insider stake is less than 20 per cent and beyond 49 per cent, but it declines when insider stake is in the range of 20 to 49 percent. Their research thus, provides evidence that the relationship between insider shareholding and firm value is not linear and but is rather non-monotonic in nature.

Prassana (2007) investigates the relationship between independent board and financial performance in terms of value creation among Indian companies. She utilizes a sample of 130 companies over a period of 5 years (2001-2005). The analysis of the data reveals that there is no significant relationship between independent board and value maximization. She however raises caution against taking the results as conclusive as further robustness checks may be required which need to include other related controlling variables such as shareholding pattern, market presence, industry growth etc.

Singh and Gaur (2009) investigate the relationship between corporate governance mechanisms and firm performance in Chinese and Indian context. The corporate
governance mechanisms considered include ownership concentration and board independence. They use a sample of 813 firms, 400 of which were Indian, while 413 were Chinese for the year 2008. The regression results reveal that ownership concentration has a positive effect, while board independence has a negative effect on firm performance. However, they do not find any country specific variation in the effect of these within firm governance variables. According to them, the results imply that the relationship between within firm governance and firm performance is not contingent on the country context in their two-country study.

Jackling and Johl (2009), contributing to the limited research on corporate governance in India, investigate the relationship between internal governance structures and financial performance of Indian companies. They study the boards of directors’ mechanisms, including board composition, board power, CEO power, board size, board activity, board busyness and firm performance. Their sample comprises of top 180 firms listed on the Bombay Stock Exchange by market capitalization, for the year ended 31 March 2006. They use Tobin’s q and return on assets as the performance measures. They find a positive, but a weak, relationship between board composition and firm performance. As a possible reason to this finding they suggest that Indian independent directors may hardly be independent. Further, three out of four measures for board leadership are found to have no significant impact on performance while CEO power is the only one which showed some relationship. They find a significant and positive relationship between board size and firm performance, which they consider is in consonance with the resource dependence theory with increasing number of board members providing a larger pool of expertise. However, they find no relationship between board meetings and firm performance. Regarding the multiple directorships of the board, it is found to have a negative relationship with firm performance which suggests that, in India, directors with multiple directorships fail to provide adequate service and value as board members.

Balasubramanian et al. (2010), recognizing the dearth of knowledge about corporate governance practices by firms in emerging economies provide an elaborate overview of governance practices in India and also establish the areas where the practices are strong or weak. They find a positive and significant association between the constructed governance index and firm market value. However, except for the shareholder rights
sub-index which is marginally significant they find that the other sub-indices for board structure, disclosure, board procedure, and related party transactions are not significantly related to firm performance. The reason advanced for the insignificance of results is that India's legal requirements are sufficiently strict so that over-compliance does not produce valuation gains. Thus, they suggest that rather than mandatory rules it will be more valuable if firms are required to follow a combination of some mandatory minimum rules and flexibility above the minimum level.

Kumar and Singh (2013) investigate the impact of board size on firm value in the Indian context. To analyze the relationship they utilize a sample of 176 Indian firms listed on the Bombay Stock Exchange. Carrying out their data analysis using the linear regression analysis they find that the board size and firm performance are negatively related.

The above review highlights the influence of resources on firm outcomes. It brings forth the importance of industrial environment in rendering a resource as strategic or non-strategic to a firm. Further, the review emphasizes the role of deployment of resources in generating firm performance. However, one can notice the presence of certain gaps, firstly, even though the influence of industry has been studied, still, one does not find a comprehensive study taking into consideration a range of resources and also the various industry characteristics and testing the relation between them. The past research has largely been about establishing the influence of industrial characteristics on innovation and IT capabilities, while the rest of the resources have been ignored. Secondly, the deployment aspect is an under-researched area. Most of the studies establish the role of a limited number of governance mechanisms on investments in R&D of a firm. A study taking into consideration a range of governance measures and their influence on various other resource investments, in addition to, R&D is not found. Lastly, one finds a range of research related to identifying the resources that lead to competitive advantage in a spectrum of industries. However, one does not find the same in the Indian context. The number of studies catering to the issue is few, and the ones that exist are limited to few industries. Thus, taking into consideration the research gaps the current study attempts to apply the various aspects of Resource Based Theory, in the Indian context.