THE EFFECTS OF THE POLITICAL-LEGAL ENVIRONMENT AND CORPORATE CHARACTERISTICS ON MERGERS AND ACQUISITIONS IN INDIA, 1991-2005

A Dissertation

by

SHILPA RANGANATHAN

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2012

Major Subject: Sociology

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Approved by:

Chair of Committee,	Harland Prechel
Committee Members,	Dudley Poston
	James Burk
	Lu Zheng
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ABSTRACT

The Effects of the Political-Legal Environment and Corporate Characteristics on Mergers and Acquisitions in India, 1991-2005. (May 2012)

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Chair of Advisory Committee: Dr. Harland Prechel

Emerging markets such as India have witnessed waves of domestic and cross-border mergers and acquisitions. This historical analysis, which consists of two parts, tests central tenets of resource dependence theory. The first part entails an analysis of the transition in public policy governing corporations between 1991 and 2005. The second part tests hypotheses derived from resource dependence theory relating to a firm's decision to acquire. The analysis explores the factors that explain why firms engage in mergers and acquisitions by examining three specific policy periods (i.e., 1991-1996, 1997-2001 and 2002-2005). The findings from the historical analysis suggest that firms did not merely react to the conditions (i.e., constraints on capital) in their environment by undertaking merger and acquisition activity, but attempted to alter them as resource dependence theory suggests. Findings from the event history logit model also support resource dependence theory. Overall, the study shows that merger and acquisition activity increased during a period of intense deregulation (i.e., 1991-2005) brought about by the adoption of neo-liberal reforms, change to the *multilayer*

subsidiary form, deregulation of the banking and financial sectors' and reforms in foreign direct investment and equity markets. During this period of uncertainty, firms controlling more resources in terms of earnings, efficiency and number of subsidiaries were more likely to undertake acquisition activity as they have leverage in organization-environment relationships. The effect of number of subsidiaries on acquisition activity was the most consistent across policy periods'.

DEDICATION

I dedicate this dissertation to my father, Prof. P.G. Ranganathan, for supporting and encouraging me in all my endeavors. He would have loved to see this day.

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I would like to thank my Committee chair, Dr. Harland Prechel for his guidance and support at every stage of the dissertation process. His valuable insights on the topic are deeply appreciated. Special thanks to Dr. Lu Zheng for being very generous with his time in helping me at every stage of the data analysis process. I would like to thank my committee members, Dr. Dudley Poston, Dr. James Burk and Dr. Robert Harmel for their constructive and significant inputs on the dissertation.

This dissertation would not be complete but for the love and support I have received from my family members and friends. I would like to thank my husband, Kalyan, for always believing in me. His unconditional love, support and persistence gave me the strength to finish this dissertation. Also, I would also like to thank my son, Reyansh, for being my source of inspiration. Last, but not the least, this dissertation is a tribute to all the sacrifices that my parents' made in order to provide me with the best education possible. I would also like to thank my extended family, here, in the United States and in India for all their wishes and moral support.

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CHAPTER I

INTRODUCTION

Corporate mergers and acquisitions have important economic and political consequences, and thus, have been the subject of interest in sociological research and discussion (Pfeffer 1972; Stearns 1986; Fligstein 1990; Davis and Stout 1992; Haunschild 1993; Palmer, Barber, Zhou and Soysal 1995; Stearns and Allan 1996; Dobbin and Dowd 2000; Morris 2000, 2004, 2005, 2007; Palmer and Barber 2001). From an economic perspective, mergers and acquisitions enable firms to achieve efficiency by economizing on scale i.e. firms attempt to increase the volume of their production by decreasing the average cost of production. Although mergers and acquisitions may result in the efficient use of capital to maximize profit, there are some negative consequences which affect the lives of people, especially employees (Tynes 1997). The acquiring firm replaces the employees or management of the target firm with its own or relocates them in firms situated in other cities or states within a country or the world. The transfer of control from one firm to another usually involves the redistribution of economic resources among the business elite in society (Palmer et al. 1995). Thus, the control of economic resources enables the business elite to influence policies in their favor, at the expense of neglect of other classes (Prechel 1990).

This dissertation follows the style of *American Sociological Review*.

During the period 1991 to 2005, mergers and acquisitions among firms in India increased, both, in terms of level of activity as well as valuation of that activity. The total deal value increased from $35 million[1] in 1992 to a peak of $1.52 billion in 1997 and remained above the $1 billion mark through the year 2001 (see Figure 1.1). In subsequent years, merger and acquisition activity continued to increase rapidly. According to India Advisory Partners, a consulting firm tracking mergers, the value of transactions in 2002 jumped to $7.41 billion ("Indian mergers double" 2002). While there was a slight decline in 2003 with deals worth $5.11 billion, the average deal value increased by 64 percent in 2004 (Winterbotham and Taraporevala 2004). Merger and acquisition activity continued to increase between 2004 and 2005 and reached an all-time record of 100 percent growth with deals worth $12.3 billion. In 2005 alone, there was a 52 percent rise in the number of merger and acquisition deals ("India witness" 2005). By number of deals, Indian firms were ranked fifth in terms of being frequent targets of merger and acquisition transactions and seventh in terms of being the most active acquirers in Asia in 2005 ("$20 billion M&A" 2005).

The upward trend in mergers and acquisitions among Indian firms (see Figure 1.1) following the liberalization of the economy in 1991 poses some important questions regarding, the reasons behind the sudden flourish in mergers and acquisitions, the types' and characteristics' of firms that participated in these transactions and changes in the political, economic and global realm that promoted this corporate strategy. It is worth noting that firms undertook mergers and acquisitions prior to the liberalization of the

[1] Unless otherwise specified, all values are in United States dollars.

economy (i.e., 1991) but they were excessively regulated and was mostly confined to state-owned enterprises and family-owned businesses. In this context, it is interesting to understand what motivated firms to increasingly resort to a specific corporate strategy (i.e., mergers and acquisitions) to concentrate their assets in the new economic environment. Thus, my research question is: What organizational characteristics and political-legal changes help explain mergers and acquisitions between 1991 and 2005?

Merger and Acquisition Waves in India

Mergers and acquisitions as a strategy for corporate growth evolved gradually as the corporate sector in India transitioned from being dominated by family-owned businesses and state-owned enterprises (i.e., public sector)[2] to one that was privatized, liberalized and deregulated.

The first merger wave occurred during the 1980s and was prior to the deregulation of the economy (i.e., 1991). With a few family-owned business groups and the public sector dominating the corporate sector, it was a highly non-competitive environment. A family-owned business group will usually consist of one or more independent parent companies that are owned and controlled by family members. Each parent company may own and control several subsidiary corporations.

[2] Businesses that are owned, managed and controlled by the central, state or local governments are known as state-owned enterprises or public sector undertakings or public enterprises. A public sector enterprise is defined as any commercial or industrial business that is owned and managed by the government with a view to maximize social welfare and protect the interests of the public.

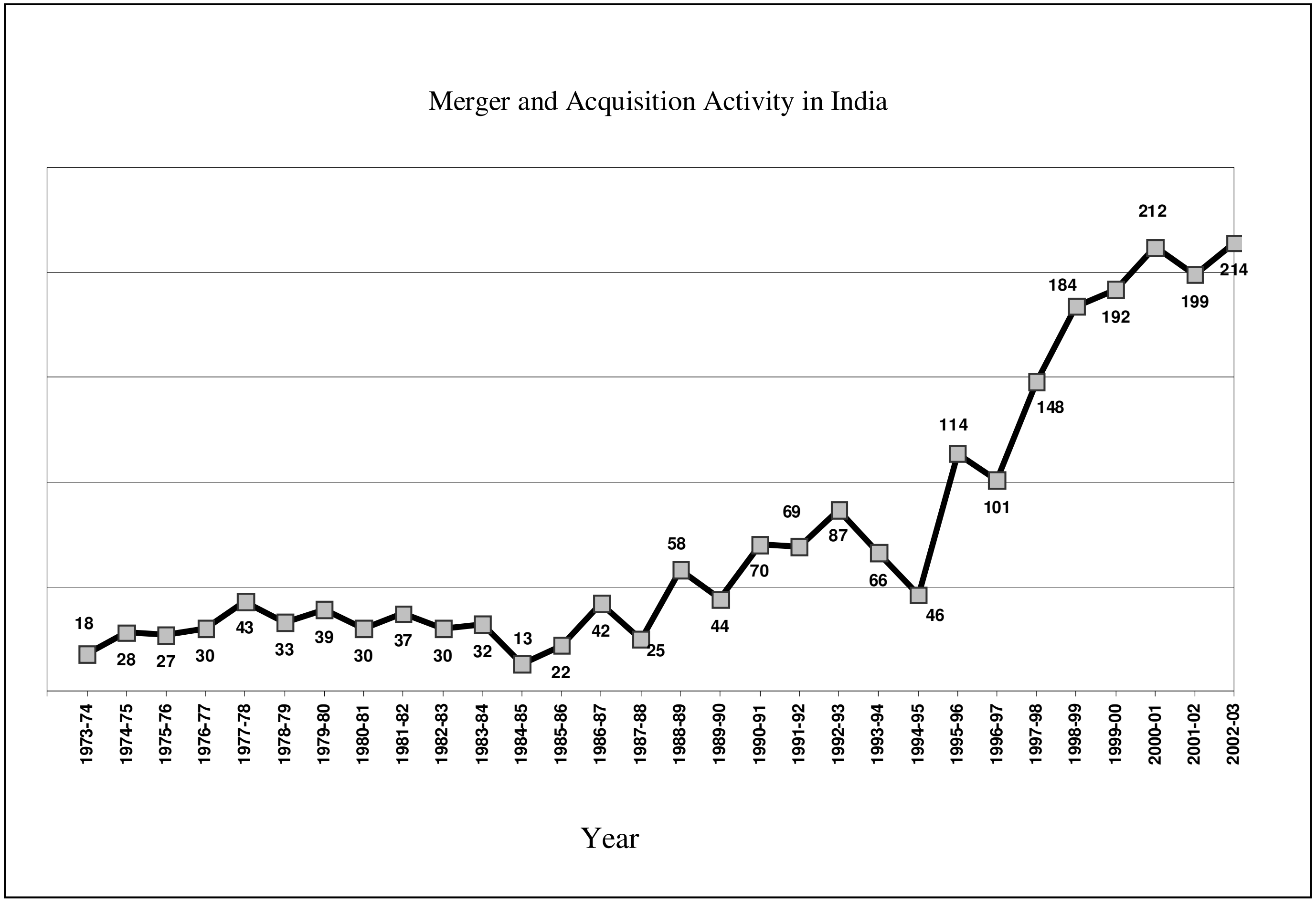

Figure 1.1 Number of Mergers and Acquisitions in India, 1973-2003

Source: Research & Statistics Division, Department of Company Affairs, Agarwal (2002).

The private sector that was comprised mostly of family-owned businesses was excessively regulated by the licensing system with a view to expand the role of the state in industrial development (Tripathi 2004).

The licensing system was established to control the pace and pattern of industrial development in India after the country gained Independence from the British in 1947. It was a part of a broader regulatory structure known as the Industries (Development and Regulation) Act of 1951. The Act of 1951 listed industries such as arms and ammunition, atomic energy, coal, iron and steel, air and railway transport as being exclusively reserved for the public sector. In addition, in industries such as machine tools, fertilizers, synthetic rubber, road and transportation that were already owned by the State, private sector businesses, in particular, had to obtain a license from a government oversight agency to participate in economic activity (e.g., exports, imports, investments). Thus, the licensing system was set up to secure the dominance of the public sector, regulate and restrict the entry and growth of new firms, control the expansion of existing firms and monitor the flow of foreign capital and technology into the country. An important consequence of the licensing system was an increase in the power of the State to implement industrial policy (Chibber 2003, p.127).

The licensing system had two consequences with regard to Indian firms pursuing mergers and acquisitions. First, the only way for a firm to grow was to buy another company since any form of expansion in production capacity or otherwise in the existing company would be subject to licensing regulations. Businesses owned by families like those of R.P. Goenka, Vijay Mallya and Manu Chabria used the merger and acquisition strategy to grow aggressively during this phase (Ramakrishnan 2007:16). Second, family-owned businesses were forced to move into areas where capabilities were difficult to develop in the short run. As a result, there were some unrelated diversifications (i.e., mergers and acquisitions between firms producing unrelated products) during this period. This resulted in the formation of huge conglomerate[3] firms. The family-owned businesses, Tatas, Birlas and Reliance are the largest conglomerates in India and invested in a wide range of industries, including textiles, cement, tea, soap, detergent, hotels, sponge iron and aluminum, steel, and telecommunication.

The second wave of mergers and acquisitions accompanied the introduction of economic reforms in the 1990s. Deregulation, privatization and globalization of corporate property rights were the central components of the new structural reforms.[4] In the newly liberalized economy, two trends were witnessed with regard to mergers and acquisitions. First, some of the family-owned business groups that had diversified into multiple product lines in the first wave had to sell their unproductive units or non-core businesses due to competitive pressures. For example, the family-owned business, Tata, sold TOMCO (Tata Oil Mill Corporation) to Hindustan Lever, an Indian subsidiary of the European multinational firm, Unilever. Tatas wanted to focus on their primary industry (i.e., steel and cement) and decided to sell TOMCO which is in the fast moving consumer goods sector[5]. Second, multinational corporations acquired Indian firms or

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[3] A conglomerate is a combination of two or more firms belonging to completely different industries'.

[4] According to Olivia and Suarez (2007), structural reforms can change the fundamental structure of the economy. They include changes in regulations, tariffs, tax rates and control of capital transactions.

[5] Fast Moving Consumer Goods (FMCG) goods are popularly named as *consumer packaged goods*. Items

entered into joint ventures with some of them. From 1993 to 2000, there were 239 acquisitions of Indian firms by multinational corporations. Some of the most prominent takeovers and joint ventures have been in the automobile, fast moving consumer goods, pharmaceuticals, food and beverages and services sectors' (Kumar 2000). For example, Puegeot of France entered into a joint venture with Premier in 1993-94 and Toyota Motor Corporation of Japan entered into a joint venture with Kirloskar Group of India in 1997 to produce inexpensive cars for Indian consumers. Parle, one of the biggest firms in the food and beverages' market in India was acquired by Coca-Cola in 1993.

Due to competitive pressures in the new economy, some of the family-owned business groups restructured their organizations as well. For example, family-owned business groups, Goenka and Godrej, transformed their product divisions into "strategic business units" and provided these units with freedom to make financial and investment decisions and also enter into alliances (see Chapter 2 for a detailed explanation about the relationship between change in corporate form and mergers and acquisitions). Some new venture firms like Tata Consultancy Services and Wipro Infotech resorted to the matrix organizational structure in which divisions were grouped both by core competence, principal markets and industries served (Mukerjea and George 1995; Khandwalla 2002:429).

During the years 2000-2005, which can be considered as the third wave in mergers and acquisitions, four trends were witnessed. First, there was consolidation in

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in this category include all consumables (other than groceries/pulses) that people buy at regular intervals. The most common in the list are soaps, detergents, shampoos, toothpaste, shaving products, shoe polish, packaged foodstuff, and household accessories and extends to certain electronic goods.

certain sectors, especially in cement and telecommunication. Second, the number of out-bound (international) deals exceeded the number of in-bound (domestic) deals in 2005. Between January 2000 and March 2006, Indian firms acquired 244 foreign firms (Sinha 2010:46). Third, a large number of horizontal merger and acquisition transactions (i.e., between firms in the same industry) took place during this phase. Fourth, there was an increase in the number of multinational corporations and their subsidiaries establishing their base in India through the merger and acquisition route, as compared to the previous two waves. For example, Swiss Cement Company, Holcim acquired ACC Cements for $810 million in 2005 and U.S. based Software Company, Oracle purchased a 41 percent stake in I-flex Solutions for $593 million (Sharma n.d.).

A few examples of outbound and horizontal merger and acquisition deals during this phase are as follows: Tata Tea Group acquired Tetley Tea of United Kingdom in 2000 for $428 million. A significant point about this deal was that a major part of the cost of the acquisition was raised from foreign investors and banks. In 2003, FLAG Telecom, a global undersea telecommunication company was acquired by Reliance Indocom, one of the biggest firms in the telecom sector in India, for $207 million. In the same year, Tata Motors acquired the truck assets of Korea's Daewoo Motors Company for $118 million and in terms of deal-value was considered to be the sixth largest outbound deal for that year. In the software sector, the Indian-based company BFL Software acquired U.S. based Mphasis Corp (software business) in an all-stock deal for $200.8 million (Pradhan and Abraham 2005).

The fourth wave that is currently in progress is a witness to merger and acquisition transactions with enormous deal values (i.e., mega-mergers) and the increasing globalization of deals. There are two trends in the current wave: First, there has been a dramatic increase in the number of Indian companies acquiring companies overseas (see Figure 1.2). Indian outbound deals, which were valued at $0.7 billion in 2000-01, increased to $4.3 billion in 2005, and crossed the $15 billion-mark in 2006 (Prabhudesai n.d.). Second, the deal values of the acquisitions are record high compared to the previous merger waves.

In the first nine months of 2006, for example, Indian companies announced 115 foreign acquisitions with a deal value totaling $7.4 billion (i.e., approximately a seven-fold increase from 2000) and reaching a little over $15 billion by the end of the year. During January to May of 2007, the total value of merger and acquisition deals was estimated to be $47.37 billion, out of which the cross-border deals were valued at 28.19 billion (Majumdar 2007). A report by Grant Thornton India shows that the largest proportion of outbound deals occurred in Europe (42 percent of the deal value) and North America (24 percent of the deal value). Industry-wise, the largest number of deals was in the information technology, pharmaceuticals, and healthcare and biotech sectors. In terms of deal value, telecommunications ranked highest with 33.6% share of deal value, followed by energy at 14%, information technology at 8% and steel at 6.5%.

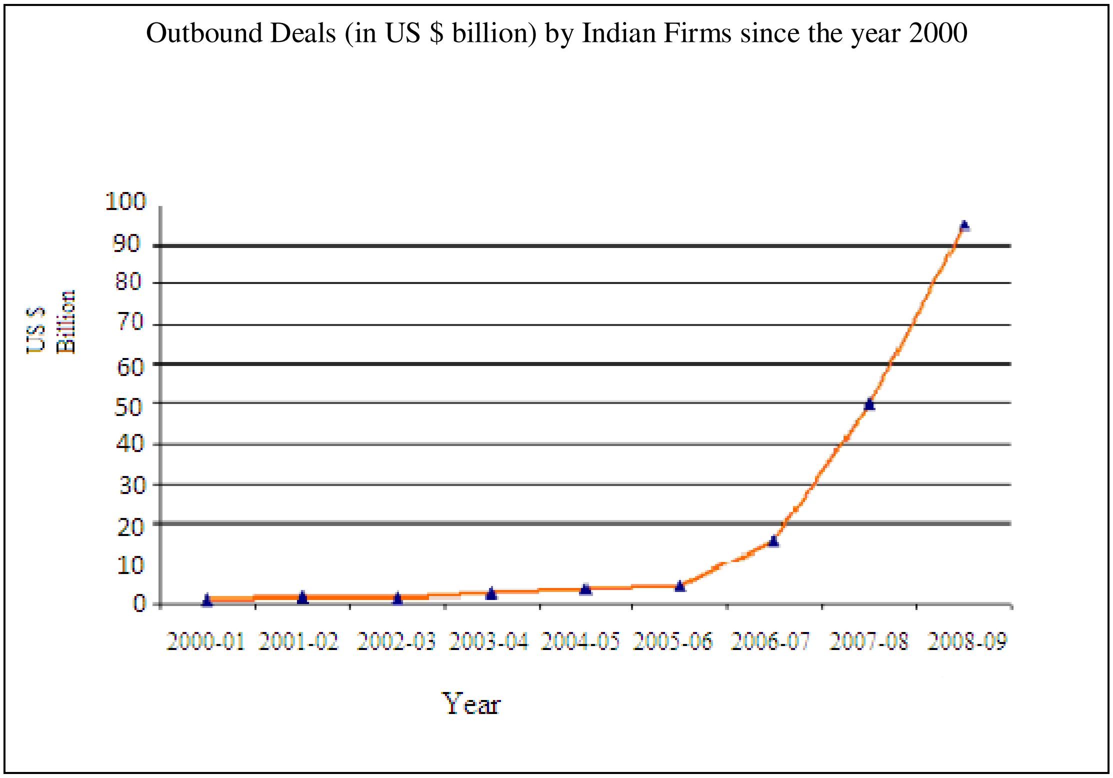

Figure 1.2 Number of Outbound deals by Indian Firms
Source: Prabhudesai, Arun. N.d. *Indian Mergers and Acquisitions: The Changing Face of Indian Business*.

A few examples of merger and acquisition deals during this phase are as follows: In 2006, one of the biggest deals in the pharmaceutical sector was the acquisition of Betapherm (a pharmaceutical company in Germany) by Dr. Reddy Laboratories (Tucker and Leahy 2006). The deal value of the acquisition was $560 million. In 2007, two large acquisitions took place in the telecom and steel sectors, respectively. Vodafone Telecom Company of United Kingdom acquired the assets of Hutchinson Essar (one of the biggest telecommunication companies of India) and is considered to be the biggest transaction in India's telecom sector. Tata Steel of India acquired the Anglo-Dutch Steel Company Corus in 2007 for $7.6 billion and is considered to the largest takeover of a foreign company by an Indian firm.

This short history about merger and acquisition waves highlights some important themes: First the unprecedented rates in merger and acquisition activity after 1991 followed changes in corporations' institutional arrangements. Second, like many developing countries, the federal government accepted the prevailing neo-liberal ideology and reduced its involvement in economic activities in two ways: (a) as a direct participant in the production process, and (b) indirect participation in the process of production through resource allocation in the economy. Third, the government redefined the political-legal environment within which Indian firms operated. Fourth, a large portion of the Indian economy was incorporated into the global economy.

The political-legal changes in the environment of corporations involved dismantling of the industrial licensing system, dilution of anti-monopoly laws, withdrawal of directed credit programs for domestic firms, deregulation of certain industrial sectors and opening up of several economic activities to private sector participation (Kakani, Saha and Reddy 2006:1-2). Reforms were implemented in several sectors of the economy which facilitated the flow of capital to the industrial sector. Changes in the financial sector were manifested in the form of deregulation of interest rates and growth of markets for both equity and debt instruments (Kakani, et al. 2006:2). The foreign investment sector witnessed the amendment of the Foreign Exchange Regulation Act (FERA), opening up of certain sectors to foreign direct investment, raising the limit on foreign direct investment and increase in foreign institutional investor participation in the governance of Indian firms (see Chapter 2 for a detailed explanation of the relationship between changes in corporation's political legal arrangements and merger and acquisition activity).

Firms that were embedded in these changing institutional arrangements (e.g., economic and political changes) attempted, both, to change these institutional arrangements by pressurizing state managers to implement policy that was favorable to merge and acquire as well as adopt different strategies and forms in order to survive. Mergers and acquisitions represent one of the strategies that Indian firms adopted during the post 1991 liberalization era (see Figure 1.1) and thus, the focus of this dissertation.

The Dissertation Plan

There are two parts to this dissertation: First, I will analyze how historical changes in a corporation's political-legal environment affected merger and acquisition activity. Second, I will examine the factors that cause one firm to acquire another firm in three policy periods (i.e., 1991 to 1996, 1997 to 2001 and 2002 to 2005) using characteristics of the corporation as variables. I will evaluate the capacity of resource dependency theory to explain mergers and acquisitions. By focusing on these two dimensions of change (e.g., environmental and organizational), I hope to bring a new insight in the study of mergers and acquisitions in India.

This dissertation will be organized into six chapters. Following the introductory chapter, Chapter II is a historical examination of the three policy periods between 1991 and 2005. I will include an analysis of the effect of the political-legal environment of corporations on mergers and acquisitions. In Chapter III, I will review the propositions of resource dependence theory that explain organizational change and present research hypotheses related to mergers and acquisitions. In Chapter IV, the data, measurement and methodology employed in the quantitative analysis will be described. Chapter V presents the findings from the quantitative analysis and discusses the results. In the concluding chapter (Chapter VI), I will present the theoretical findings and discuss the limitations and scope of the study.

CHAPTER II

THE EFFECT OF POLITICAL-LEGAL INSTITUTIONAL ARRANGEMENTS ON MERGER AND ACQUISITION ACTIVITY*

This chapter on policy environments will provide a context for the quantitative analysis by undertaking a historical qualitative analysis of changes in the political-legal environment of firms in India. I will focus on how changes in corporations' political-legal environment changed public policy in ways that affected merger and acquisition activity. Particular attention is given to the period following the economic crisis in the early 1990s, when public policies and state structures were redefined in ways that transformed corporate property rights of Indian firms and permitted increased ownership of business enterprises by transnational corporations.

The theoretical logic guiding my analysis is that organizational change is historically contingent. Historical contingency theory draws from capital dependency theory and suggests that periodic constraints to capital accumulation compel action (Prechel 1990:665). That is, significant changes in the capital accumulation process necessitate a response. The character of the specific action taken is shaped by the political and economic context. I argue that the political-legal environment of corporations' facilitated or hindered the accumulation of capital and this structured the motives and actions of Indian businesses as well as their interests and opportunities for

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realizing them. Prechel (1990, 2000), Akard (1992) and Morris (2000, 2004, 2005) have shown the strength of the historical contingent framework in analyzing issues in organizational and political sociology.

Historical Contingencies

The examination of social change is a central theoretical concern of historical sociology: the conditions under which groups that share an interest act or fail to act on that interest (Tilly 1981). There are two important questions that are related to this theoretical problem. First what are the bases of social action? Second, to what extent do historical conditions and social structures affect political mobilization and the capacity of social actors to exercise power?

The primary concern is with the disruption in the historical trajectory and the historical transitions that result in political mobilization to enact social change. Whereas *historical trajectories* are interlocked and interdependent sequences of events that represent stability, *historical transitions* are stages along historical trajectories that entail radical shifts (Abbott 1997). The concern here is with the departure from the previous historical trajectory and with the sequence of events that produce that shift (Rueschemeyer and Stephens 1997). Identifying trajectories and transitions are essential to understand historical sequences that produce social change.

Social structure of accumulation theory suggests that historical transitions are the outcome of economic crisis, which emerge when the institutional arrangements (i.e., ideological, political, economic) are unable to ensure conditions favorable to capital accumulation (Gordon, Edwards, and Reich 1982; Kotz, McDonough and Reich 1994). However, a breakdown in one part of these institutional arrangements undermines capital accumulation (i.e., decay stage)[1]. Research examining these historical transitions shows that in response to extended periods of capital dependence and economic crisis, the capitalist class unifies and mobilizes politically to redefine the political-legal arrangements in which corporations are embedded (i.e., exploration stage) (Prechel 2000)[2]. Public policies and state structures are enacted to institutionalize market stability in ways that ensure an acceptable rate of capital accumulation for the dominant power bloc. Decay-exploration transitions in the social structure of accumulation entail a shift in the dominant economic sector and the internal composition of the dominant power bloc (see Table 2.1).

Although historical transitions are the outcome of class-based political behavior that occurs in response to economic crisis, the dominant power bloc does not always have the economic and political power to overcome the economic crisis. Power blocs that emerge in the political realm consist of a coalition of classes and class fractions whose composition varies historically. The outcome of power struggles' to establish a new power bloc are enacted as policies and manifested as state structures, which redefine the political-legal arrangements within which capital accumulation occurs.

The central concern here is with the historical transition in India's political-legal

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[1] According to social structure of accumulation theorists, the *decay* stage represents periods when institutional arrangements are not capable of ensuring a constant rate of capital accumulation (Prechel 2000: 14).

[2] According to social structure of accumulation theorists, the *exploration* stage represents periods when capitalists and state managers attempt to redefine stable conditions for profit making (Prechel 2000: 14)

arrangements that occurred in response to the prolonged decline in the rate of capital accumulation that was manifested as a debt crisis in 1991. The turning point[3] in India was the adoption of neo-liberal reforms in 1991 in order to overcome the debt crisis. This turning point had consequences, both for the political-legal institutional arrangements that existed and for the firms that were operating within them. Thus, the question that I attempt to answer in the qualitative analysis is twofold: First, how did the ownership structure of Indian firms change from a mixed-system characterized by family owned business groups and state-owned enterprises to an economy characterized by a combination of domestic and foreign private ownership with substantially fewer state-owned enterprises? Second, why did the firms in India resort to a specific strategy of corporate growth? In the following, I will examine how corporate property rights were redefined politically as a response to domestic economic conditions and economic globalization in each policy period (i.e., 1991-1996, 1997-2001 and 2002-2005).

[3] Turning points represent change and are important for understanding historical sequences.

Table 2.1 Decay-Exploration Transitions: Economic Organization, Political Party in Power, Dominant Economic Bloc/S, and Regulations Governing Mergers and Acquisitions, 1991-2005

Decay - Exploration Periods	*Prevailing Economic Organization*	*Political Party in Power*	*Dominant Capitalist Class/es*	*Regulations Governing Corporate Activity/Mergers and Acquisitions*
1991 - 1996	Mixed: State and Capitalist Ownership	Congress Minority government	(1) Family-Owned businesses (2) State-Owned Enterprises or Public Sector	(1) Monopolies and Restrictive Trade Practices Act (MRTP), 1969-Amended; (2) Foreign Exchange Regulation Act, 1973-Amended (3) Substantial Acquisition of Shares and Takeovers, 1994
1997 - 2001	Domestic Capitalism	Bharatiya Janata Party Coalition government	(1) Private sector - New Venture Firms; (2) Family-Owned Businesses; (3) Transnational Corporations	(1) Takeover Code, 1997 (2) Companies Bill of 1997 (3) Foreign Exchange Management Act (FEMA), 1999
2002 - 2005	Global Capitalism	Congress Coalition government	(1) Private Sector; (2) Family-Owned Businesses; (3)Transnational Corporations	Competition Act, 2002 – Revised in 2003

The Case Study

India is an important case to study for several reasons. First, India is one of the BRIC countries (i.e., Brazil, Russia, India, China), which are expected to become the largest national economies' in the world. Second, firms in India earned higher returns on equity and invested capital in areas ranging from autos to food products. The average Indian company posted a 16.7% return on capital between 1991 and 2005. Third, there is the increasing presence of multinational corporations and their subsidiaries in India. By examining how domestic politics and state structures affected subsequent political-legal arrangements, the analysis here assesses the extent to which policies implemented in India's financial sector, equity markets and in the area of foreign direct investment have been used by businesses to pursue mergers and acquisitions.

Historical Context: Political-Legal Arrangements Prior To 1991

Empowered by British colonial rule, the power bloc of large family-owned businesses dominated Indian policies up to independence of India. In the mid-1940s, seven family-owned business groups formed a coalition and developed the Bombay Plan. These family-owned business groups recommended a closer relationship between domestic private businesses and the state by proposing roles for government and business in economic development (Chibber 2003). Although the Bombay Plan never materialized, the significance of this historical event is that it represents an early effort by some capitalists to influence and control private property rights by creating a role for big business in the policy formation process.

After independence in 1947, the Nehru government (Congress) was forced to concede to the demands of family-owned businesses. A key component of political-legal arrangements was the licensing system that allowed the state to gain monopolistic control of key economic sectors. The licensing system ensured that a list of sectors (i.e., coal, telecommunications, power, insurance, mining, oil, etc) were reserved for the state and required private-sector businesses to obtain a license from a government oversight agency to participate in economic activity (e.g., exports, imports, investments). Nehru's economic program resulted in establishing state-owned firms to develop the infrastructure.

The State continued to regulate the private sector, especially the increasingly powerful family-owned businesses. After Indira Gandhi (Congress) became Prime Minister in 1966, she proposed the Monopolies and Restrictive Trade Practices Act (MRTP) of 1969. The legislation was set up to prevent the concentration of economic power and monopolistic, restrictive and unfair trade practices (Chakravarthy 2001). Family-owned businesses lobbied the government for protection from foreign corporations and the Foreign Exchange Regulation Act (FERA) was passed in 1973. One of the key requirements of the FERA legislation was for foreign companies to reduce their ownership share to less than 40 percent in Indian companies. This legislation encouraged the development of domestic big business and limited the capacity of transnational corporations to set up businesses in India and to merge with or acquire Indian corporations.

Family-owned businesses continued to align themselves with the ruling party (Congress) and used this alliance to influence the policy formation process. During Rajiv Gandhi's tenure as Prime Minister during the 1980s, family-owned businesses succeeded in amending the asset limit for companies covered under the Monopolies and Restrictive Trade Practices Act of 1969. The asset limit for companies was raised five times higher than the previous limit. The primary effect of this amendment was to permit corporations monitored by the MRTP Commission to expand without government supervision (Frankel 2005) and also, facilitate mergers and acquisitions. The prevailing regulatory structure benefitted family-owned businesses by increasing their ownership of domestic business enterprises and capacity to establish monopolies. However, the lack of competition perpetuated inefficiencies within this dominant capitalist class. By the late 1980s, India's economy continued to weaken and many businesses failed to realize a profit.

Policy Period I: Economic Crisis and Public Policy Reforms, 1991-1996

India's economic crisis deepened as a consequence of Saddam Hussein's invasion of Kuwait in August 1990. First, the price of oil rose, which resulted in a substantial increase in manufacturing costs. Second, Indian workers in the Persian Gulf stopped sending their wages home, which reduced the availability of capital at the historical point when India desperately needed it. Third, investments from Non-Resident Indians in the Middle East declined considerably (Ahluwalia 1999:28). Fourth, the termination of exports to Iraq and Kuwait decreased India's export trade and inflow of foreign capital. In addition, the decline of the Soviet Union in 1991 meant a rapid erosion of trade with India's primary trade partner.

In an attempt to keep the economy from falling into a recession, the government borrowed heavily from Non-Resident Indian deposits[4] and obtained loans from commercial banks. Although this facilitated economic growth, it increased India's external debt, which rose from 12 percent of GDP in 1980-81 to 23 percent of GDP in 1990-91 (Ahluwalia 1999). The shortage of capital reserves led to a further tightening of restrictions on imports, which resulted in a decline in industrial production dependent on imports. Further, government deficits continued to increase and the country struggled under high debt payments. The primary option available to reduce government debt entailed cutting back on infrastructure spending, which would further undermine economic growth.

In addition to the economic crisis, there was a political crisis as well. For the first time, the government in 1991 was formed without a majority in the Parliament. Narasimha Rao was elected as the Prime Minister of the minority government[5]. The opposition parties agreed to cooperate with the Rao government on an 'issue to issue basis,' which created additional opportunities for class and status groups to pursue their economic agendas politically. Rao and his two top ministers, Dr. Manmohan Singh

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[4] Non-Resident Indian deposits were set up to encourage Indian workers in foreign countries to deposit their savings in Indian banks.

[5] A minority government is formed when no party or coalition establishes a majority (i.e., more than half of the total number of seats in Parliament). In this situation, the party with the highest number of votes is given a few days to establish a majority with support from other political parties.

(Finance) and Dr. P. Chidambaram (Commerce), considered the prevailing political-legal arrangements as oppressive, inefficient and unable to deliver quality products (Yergin and Stanislaw 1998:219). A primary agenda of the Rao government was to encourage foreign investment by transforming corporate property rights.

Political Reforms to Encourage Corporate Combinations and Foreign Ownership

The day after Rao took over as Prime Minister, Finance Minister Manmohan Singh informed him that India's deficit was 8 percent of gross domestic product, public debt was 55 percent, and interest payment on foreign debt consumed another 4 percent (Yergin and Stanislaw 1998:221). Moreover, the country's foreign exchange reserves covered only two weeks of imports. To address the deepening economic crisis, a pro-business coalition within the government that supported previous World Bank and IMF initiatives pressured state managers to obtain financial assistance from the International Monetary Fund (IMF).

India's neoliberal state managers complied and, in July 1991, Manmohan Singh outlined a plan to Parliament to initiate rapid industrialization by devaluing the rupee, cutting subsidies for domestic products, and reducing tariffs and trade barriers. This resulted in substantial opposition from conservative Hindu political parties. In contrast, the large family-owned businesses took advantage of this opportunity to criticize state managers, and pressured them to implement policies that went beyond those stipulated by the IMF. They argued that the policies should redefine property rights in ways that facilitated privatization of the public sector, encouraged competition, facilitated mergers and acquisitions and attracted foreign capital (Kohli 2006a, 2006b).

The primary target of these reformers was the Monopolies and Restrictive Trade Practices Act.[6] Provisions constraining the concentration of economic power were eliminated, which included restrictions requiring prior approval for establishing new business ventures, and expanding current businesses through amalgamations, mergers and acquisitions. The new policy also raised the limit for market control to one-fourth of the market share (Chakravarthy 2001). This provision, in most cases, eliminated size as a criterion to determine dominance within an economic sector.[7] Over time, licenses for 80 percent of Indian industries were eliminated.

In order to attract foreign capital, state managers set up additional economic reforms that included rupee convertibility[8] and removal of restrictions on repatriation of dividend income on foreign capital. This deregulation was designed to facilitate integration into the global economy (Andersen 1994:134). In response to the Confederation of Indian Industry business lobby (Sinha 2005), state managers also relaxed provisions in the 1973 Foreign Exchange Regulation Act (FERA) to make it more viable for transnational corporations to own and acquire Indian corporations. The

[6] The Monopolies and Restrictive Trade Practices Act of 1969 defined monopoly in terms of assets and control over market share. It required new business ventures and existing companies with assets of more than 20 crore rupees (i.e., approximately $4 million) to register with the Monopolies and Restrictive Trade Practices Commission.

[7] Corporations with assets of more than $20 million were still required to register with the (MRTP) Commission and firms that were designated as MRTP companies had to obtain permission from the MRTP Commission to engage in mergers and acquisitions (Beena 2000).

[8] Rupee convertibility implies that the Indian rupee can be transferred in to any country's currency without any limitations or control. A currency is considered to be fully convertible if it can be converted into some other currency at the market price of that currency.

amended FERA revised property rights in ways that created a mechanism for automatic approval of up to 51 percent foreign ownership in 35 high priority, capital-intensive and high technology industries (Center for International Trade, Economics and Environment and National Council of Applied Economic Research 2002).

This change in property rights was extremely important because it allowed foreign parent companies, for the first time in decades, to establish ownership control over Indian firms. It also allowed them to set up *subsidiaries:* separate legal entities in which the parent company owns more than 50 percent of its stock. The property relationship between parent companies and their subsidiaries provides the parent company with the right to exercise *ownership control*: decision-making authority over these legally separate companies (Prechel 2000).

After these policy changes, the number of domestic mergers and acquisitions increased. In a study of 45 corporate combinations, the majority (i.e., 69 percent) were horizontal (i.e., between firms in the same industry) and the remaining combinations were divided equally between vertical (i.e., between firms that are complementary to each other) and conglomerate (i.e., between firms producing unrelated products) mergers and acquisitions (Beena 2000; Kumar 2000:2852).

Deregulation in the Financial Sector

Prior to 1991, the government owned all the major banks. State-ownership of banks was initiated by the nationalization policy in 1969. Although the government encouraged private ownership of banks, its policy of bailing out poorly performing companies in order to mitigate employment and poverty problems led to state-ownership of insolvent and low profit banks.[9] By the early 1980s, state-ownership accounted for 90 percent of total bank deposits.

By 1979, these conditions resulted in tight credit and restricted access to capital and criticism of the Congress Party from the working class and capitalist class fractions. In response, the Congress Party began to monitor banks. The Party also encouraged its members who served on the board of directors' of banks to provide lower interest rates to businesses and farmers (Hankla 2006). In 1974, the Tandon Working Group was created by the Central Bank of India. This group consisted of representatives from other banks, financial institutions, and large family-owned businesses. One of its primary agendas was to facilitate the use of bank credit. In addition, the Credit Authorization Scheme required that state-owned banks complete a detailed analysis of businesses whenever they attempted to borrow large amounts of capital.

By 1991, the government began to deregulate interest rates, cut liquidity requirements for corporations pursuing external financing, and encouraged private ownership of banks (Shirai 2002). These reform programs also created incentives for government-owned banks to place more emphasis on profits.

Political Reforms to Facilitate Equity Financing

State managers also began to deregulate the amount of equity capital a company

[9] By 1992 and 1993, the non-performing assets of 27 public sector banks amounted to 24 percent of their total credit.

could raise in a stock offering, which was specified under the Capital Issues Control Act of 1942. In 1992, state managers eliminated the 1942 act and replaced the Office of Capital Issues with the 'market-friendly' Securities and Exchange Board of India (Kumar 2000:2851). Finance Minister Singh maintained that government control over capital issues had lost its relevance, and that the new state structure gave companies the freedom to raise equity while protecting investors (Varshney 1999:234).

This deregulation of corporate securities had important implications. Between 1990 and 2001, equity finance became one of the largest sources of external capital for Indian corporations (Shirai 2002). Between 1993 and 1995, India underwent a stock market boom when many firms raised capital from the equity market. The number of publicly listed firms also increased rapidly from 6683 in 1991 to 8747 in 1995. The share of market capitalization as a percentage of gross domestic product (GDP) rose from 32 percent in 1992 to 46 percent in 1995 (Shirai 2002).

Foreign Ownership

Together, the extension of transnational corporate property rights governing percent of foreign ownership and the deregulation of the securities market resulted in a rapid increase in investment by transnational corporations. Several U.S. Fortune 500 companies including General Motors, Ford, Merck, Sony, Honda Motors, Coca Cola, Hewlett Packard, and Texas Instruments invested in Indian corporations by purchasing stock and creating subsidiaries (Ahluwalia 1999:54). Non-U.S. based transnational corporations also acquired Indian companies. The transnational corporation Hindustan

Lever acquired Tata Oil Mills (TOMCO) in 1994 and Lakme in 1995-1996 (Kumar 2000).

The flow of portfolio capital (i.e., investment in securities such as stocks, bonds, or other financial assets) also increased foreign ownership (Park 2004:3551).[10] Foreign stock ownership took two primary forms. First, in 1993, foreign institutional investors that met certain minimum standards were allowed to invest in equity and later in debt instruments. Soon, more than 500 foreign institutional investors registered with the Securities and Exchange Board of India and approximately 150 began to actively invest in Indian firms. Second, Indian companies were allowed to raise capital by issuing global depository receipts,[11] which provided a means for foreign portfolio investors to purchase stock or invest in joint ventures (Ahluwalia 1999:56).

Investment from foreign institutional investors and individuals holding global depository receipts rose from $4 million in 1991 to $3.6 billion between 1993 and 1994. Between 1993 and the end of 1994, foreign investors purchased $2.8 billion of securities in Indian corporations. This amount increased to about $120 million a month in late 1994.[12]

The increasing role of foreign institutional investors has been a source of strain

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[10] These changes resulted in a dramatic increase in foreign investment from approximately $2 million in 1981 and $26 million in 1990 to around $109 million in 1991 (Rao, Murthy, and Dhar n.d.).

[11] Global depository receipts are certificates issued by an international bank that can be circulated on world capital markets. They facilitate trading of shares, especially those from emerging markets.

[12] Foreign exchange reserves increased from roughly $1 billion in 1991 to almost $20 billion at the end of 1994 (Kumar 2000:2852).

for those managing Indian firms. Indian owners/managers of firms tend to be very complacent regarding firm performance and focus on increasing their ownership rather than distributing returns to shareholders. Foreign institutional investors, as compared, to the Indian government-controlled financial institutions, place more emphasis on corporate performance and corporate governance procedures. Government-controlled financial institutions tend to support management, irrespective of performance while foreign institutional investors are geared towards improving or removing inefficient management. Foreign institutional investors are expected to show returns' on their investment whereas government-controlled financial institutions are rarely asked to do so.

Property Right Laws and Corporate Form Change

Changes in India's political-legal arrangements during this decay-exploration phase created the conditions that permitted Indian corporations to restructure as the *multilayer subsidiary* form: a corporation with a hierarchy of two or more levels of subsidiary corporations with a parent company at the top of the hierarchy operating as a management company (Prechel 2000:12). Within this corporate form, parent companies can organize their entities as subsidiary corporations and establish ownership control over them by owning just over 50 percent of their stock.

This corporate form facilitates mergers and acquisitions in two important ways: First, corporations can acquire other corporations or subsidiary corporations by purchasing just over 50 percent of their stock to establish ownership control. This is in contrast to, for example, the multidivisional form, which requires 100 percent ownership of a business unit to incorporate it into the company. Second, because subsidiary corporations are legally independent entities, they can issue stock. This characteristic allows parent companies to use their subsidiaries to raise equity capital by issuing securities (e.g., stocks, bonds) in them.

In India, this layered-subsidiary form, also, facilitated foreign investment. After the Industrial Policy Statement of 1991 made several economic sectors eligible for automatic approval of up to 51 percent foreign ownership, foreign corporations can acquire domestic companies and incorporate them as subsidiaries. Foreign individuals and institutional investors can also easily invest in Indian firms.

Policy Period II: Political Realignments, Redefining Corporate Property Rights and Corporate Form Change, 1997-2001

In the early 1990s, bribery and other scandals weakened the political base of the Congress Party. Several senior members of the party including Rajiv Gandhi and Narasimha Rao were accused of receiving payments from a business group in return for securing business contracts for their steel fabrication company (Frankel 2005:690). The Bharatiya Janata Party (BJP) used this opportunity to openly criticize the Congress Party's patronage system and its policies to open the economy to foreign competition without providing protections for Indian-owned companies (Nayar 2000:799-800). The BJP distinguished between internal-based liberalization and external-based liberalization and advocated for less intervention in the economy, self reliance, and less privilege.

Although the BJP won the 1996 general election, it was unable to obtain sufficient support to establish a government.

After an initial period of political instability, a coalition consisting of 13 minority regional parties formed a government called the United Front[13]. This government included an unusual coalition consisting of the pro-labor Communist Party of India (M)[14] and the right to center pro-business Congress Party. This political coalition emerged because of their shared interest in limiting the growing political power of the BJP (Singh 2001; Frankel 2005).

The BJP continued to build its political support by advocating the Hindu philosophy of *swadeshi* (i.e., self reliance)[15] and in 1998 formed a coalition government called the National Democratic Alliance, which was in power for only 13 months. In 1999, the National Democratic Alliance, under Prime Minister Vajpayee, was reelected (Singh 2001). The National Democratic Alliance coalition modified Rao's version of liberalization and advocated a 'common minimum program' (i.e., An Agenda for a Proud, Prosperous India), which incorporated the economic objectives of the coalition parties. This alliance marked an important shift from single-party governments to multi-party coalition governments. It also entailed a shift in the political orientation of the BJP

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[13] A coalition government is formed when an alliance among competing parties before the elections obtains the necessary number of votes.

[14] In 1964, the Communist Party of India split when the Communist Party of India (M) (i.e., Marxists) was formed. A second division occurred in 1969 when the Communist Party of India (ML) (i.e., Marxist-Leninist) split from the Communist Party of India.

[15] *Swadeshi* stresses self-reliance and is manifested as encouraging consumption of domestically produced goods. It is also associated with economic nationalism.

from Hindu nationalism to representing the economic and secular interests of its political base.

Property Right Reforms to Facilitate Corporate Takeovers

Throughout this period, the Confederation of Indian Industry continued to lobby state managers to establish policies favorable to big business. This business lobby pressured the National Democratic Alliance government to reform equity markets. Their primary agenda was to create a political-legal environment to facilitate hostile takeovers ("Privatization and Liberalization" 2001). In a report issued by the Confederation of Indian Industry, they argued that takeovers aid economic growth by creating economies of scale and scope and increased shareholder value (Dasgupta n.d.).

In response, state managers established the Bhagwati Commission to review the takeover policy. This Commission recommended deregulating corporate takeovers. After this Takeover Code was adopted on February 20, 1997 (Kumar 2000:2851), state managers also proposed that the Companies Bill of 1997 replace the Companies Act of 1956. The new legislation, if passed, would allow corporations to buy their own stock, make capital transfers to subsidiary corporations, and loan capital to other corporations without obtaining permission from government oversight agencies. The new Takeover Code also created a mechanism for both hostile and negotiated takeovers, which were virtually impossible under previous political-legal arrangements. It also required target companies to register their securities so that they could be easily transferred, irrespective of the buyer (Roy, Bakshi, and Ghosal 1997; Reed 2002:257). In addition, it eliminated the need to obtain government approval of takeovers.[16] Together, the Takeover Code and the Companies Bill facilitated an increase in mergers and acquisitions.

Redefining Property Right Laws and Increased Foreign Ownership

To further encourage foreign investment, state managers stipulated that 48 industries identified in the Industrial Policy Statement of 1991 were eligible for automatic approval of up to 51 percent foreign ownership. In the following year, the limit on automatic approval of foreign ownership was raised from 51 to 74 percent in nine categories of industries (Indian Economic Survey 1997-1998). Foreign ownership was further facilitated by permitting 100 percent foreign ownership in economic sectors that were designated as crucial to economic growth that were not included in the automatic approval regulation. Deregulation also permitted transnational corporations to own 100 percent of joint ventures, if an Indian partner was not available and the firm divested at least 26 percent of its equity in three to five years. In addition, the limit on foreign portfolio (e.g., stock) ownership was raised from 24 to 30 percent, and later to 40 percent in most business sectors that were not previously deregulated. Also, the ceiling on the equity holding of a single foreign institutional investor was raised from five to 10 percent ("Privatization and Liberalization" 2001).

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[16] Also, under the previous corporate law, corporate raiders had to apply to the Securities and Exchange Board of India for permission to ensure that the competitive bid was beneficial to the target company. In some cases such as Bombay Dyeing's attempt to compete with Torrent Group to acquire Ahmedabad Electricity Company, this takeover attempt was blocked by the Securities and Exchange Board of India.

The Confederation of Indian Industry lobby continued to pressure state managers to further weaken the Foreign Exchange Regulation Act, which regulated foreign ownership of domestic firms. In 1999, when the National Democratic Alliance Party replaced the United Front government, it eliminated the Foreign Exchange Regulation Act and created the Foreign Exchange Management Act (Ahluwalia 1999:52; "What FEMA" 2000) in 1999. This legislation opened virtually all economic sectors to foreign corporate and individual investors.

After corporate property rights were redefined to eliminate most restrictions on foreign ownership in most economic sectors, several critical changes occurred. First, many corporations restructured as the *multilayer subsidiary* form. Second, foreign individuals, institutional investors and corporations increased their ownership of Indian parent companies and subsidiaries through takeovers, joint ventures and/or purchase of securities. Third, other business policies established free-trade zones, which provide transnational corporations with state-subsidized operating facilities. Between 1995 and 1998, foreign investment in India increased from approximately $654 million to $3.682 billion (see Figure 2.1).

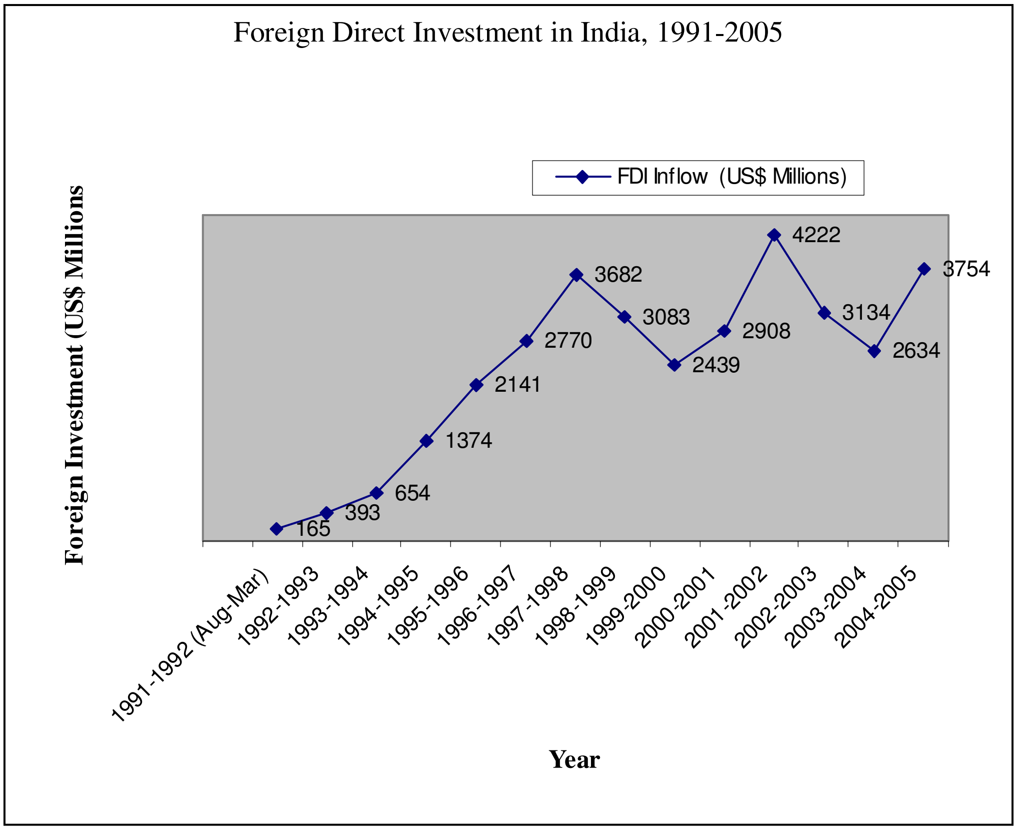

Figure 2.1 Foreign Direct Investments in India, 1991-2005
Source: Ministry of Commerce and Industry-Department of Industrial Policy and Promotion

Redefining Bank Laws and Increased Foreign Debt

Despite the extensive transformation in India's organizational and political-legal arrangements, advocates of the neoliberal model inside and outside the state lobbied to further deregulate the banking sector. The Confederation of Indian Industry continued to be among the most politically active lobby group.[17] Subsequent changes in banking

[17] Also, during a visit to the United States in 2000, Prime Minister Vajpayee requested an infusion of foreign capital of $10 billion annually (Frankel 2005:728).

laws included the Monetary and Credit Policy Act of 1997, which relaxed restrictions on bank financing and laid the foundation for the integration of Indian currency and foreign exchange markets (Roy et al. 1997). This legislation also allowed banks to determine corporations' working capital requirements and to assess their risk levels. In addition, the government deregulated the guidelines governing the issuance of commercial paper. By making it easier to access debt financing, this change facilitated the use of private debt and commercial paper to mitigate corporations' capital dependence (Kamesam n.d.).[18]

The Confederation of Indian Industry also lobbied the government to require financial institutions to sell their stock in corporations. This corporate lobby criticized the current political-legal arrangement where financial institutions (e.g., commercial banks, public financial institutions) were agents of the government. They argued that government-controlled financial institutions could not properly monitor firms because they had a conflict of interest as both creditors and shareholders, and this relationship permitted financial institutions to support corporate management, irrespective of performance. To resolve this conflict of interests, they advocated for decreased government ownership (Dasgupta n.d.; also see Roy et al. 1997).

In response, state managers further deregulated the financial sector of the economy. In 1998, the government allowed banks and financial institutions to finance

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[18] Whereas commercial paper is low-risk short-term unsecured debt, private debt entails the sale of debt or securities to investors. The capital obtained from the sale of debt can be used to finance acquisitions and other expenses.

acquisitions through bonds or debentures (Dasgupta n.d.). The new provisions also made it possible for corporations to borrow against their securities and commercial paper. This policy made it viable to set up leveraged buyout funds and transfer capital among corporate entities inside the same corporation. During the same period, state managers passed legislation (e.g., Income Tax Act), which lowered corporate taxes by reducing the peak depreciation rate, reducing the capital gains tax from 20 percent to 10 percent, and removing taxes on corporate restructuring (e.g., mergers, acquisitions) (Roy et al. 1997). Whereas the previous legislation taxed capital transfer in mergers, the revised policy exempted companies that were either the target or the acquirer from this tax. Also, if both target and acquirer are Indian companies, the shareholders were exempt from paying a tax (Ramanujam 2006).

The business lobby also pressured state managers to reduce the size requirement of initial public offerings (IPOs) of stock. They argued that this law was biased against small and medium-sized firms' because it restricted their capacity to raise capital in the equity market (e.g., public stock offering) (Shirai 2002). In 1999, the Kumar Mangalam Birla Committee, which was appointed by the Securities and Exchange Board of India (Som 2006:4156), recommended deregulating IPOs for information technology firms. This change in the regulatory structure is important because it allowed corporations to restructure their smaller corporate units as legally independent subsidiary corporations and raise capital by issuing stock in them. Following these changes, IPOs rapidly increased and India underwent a stock market boom; market capitalization as a percentage of gross domestic product rose from 34 percent in 1999 to 85 percent in 2000

(Shirai 2002). The particular form of deregulation in India paralleled those that occurred in the United States in the previous decade (Prechel 2000).

These new property right laws created incentives for corporations to change to the *multilayer subsidiary* form. First, eliminating the tax on corporate restructuring reduced the cost of transforming to this layered-subsidiary form. Second, eliminating taxes on the distribution of profits via dividends reduced operating costs in this corporate form. Third, the deregulation of stock offerings made it possible to raise equity capital by issuing stock in smaller subsidiary corporations. This corporate form change, in turn, facilitated an increase in mergers and acquisitions by making it easier for corporations to raise capital internally to finance restructuring strategies.

Policy Period III: The Merger and Acquisition Wave, 2002-2005

Although big business began to lobby for changes in the Monopolies and Restrictive Trade Practices Act in 1999, they increased their lobby efforts in response to the economic recession in 2001 that followed the stock market boom (Goswami 2000). Foreign corporate consultants including KPMG advised their clients that "a slump in the economy is a good time to consolidate" (Maitra and Jayakar 2001). However, the capacity of foreign corporations to acquire businesses was still constrained in some economic sectors by the regulatory environment that required domestic ownership control of corporations.

Beginning in May 2000, the business lobby maintained that further modification of corporations' political-legal environment was necessary to facilitate mergers and acquisitions. The corporate lobby pressured state managers to restructure several dimensions of the political-legal environment in which corporations are embedded. First, was to create a new regulatory body named the Competition Commission of India (CCI) to process merger applications. Second, was to notify the CCI about proposed mergers where the assets of the merged entity exceed 500 crore Rupees (i.e., $102 million), or when the assets of a subsidiary that is proposing a merger exceed 2000 crore Rupees (i.e., $410 million). Third, was to give the CCI 90 days from date of the application to either accept or reject the merger. Fourth, was to exclude predatory pricing as a criterion to prohibit the combination because lower prices can benefit consumers.[19] Fifth, was to make agreements between competitors (i.e., horizontal integration) and between buyers and sellers (i.e., vertical integration) subject to the law. Sixth, was to ensure that combinations involving state monopolies and foreign companies are subject to examination and approval by the Commission (Dasgupta n.d.).

These recommendations were supported by the pro-business Finance Minister, Jaswant Singh of the BJP, who maintained that the new policy would enable domestic companies to grow and compete in the global economy ("Competition Bill" 2002). In January 2003, the revisions to the Competition Act were adopted by the President of India (Agarwal 2005; Dasgupta n.d.).

Additional concessions to business further weakened government oversight by permitting large corporations to voluntarily notify the Commission of most kinds of

[19] The Act defined combinations as mergers, amalgamations, and acquisition of shares, voting rights or assets and acquisitions of control.

combination.[20] To justify these changes, the Competition Commission maintained that market share is a necessary but insufficient condition to determine dominance because firms with large market shares' can face competition from potential entrants, existing firms, or the purchasing power of customers. The Competition Commission redefined market dominance of a firm as "the economic strength to behave, to an appreciable extent, independently of its competitors and customers" (Department of Company Affairs n.d.). The clause 'to an appreciable extent' is particularly important because it makes market dominance open to interpretation. Now, the primary criteria defining market dominance were the assets of the merged entities. The effect of this policy was to exclude from government oversight corporate combinations by large domestic and transnational corporations that control a substantial market share (Dasgupta n.d.).[21]

Restrictions on the percentage of foreign ownership were completely eliminated in some economic sectors during this policy period. In 1999 and 2000, the government enacted policy that permitted 100 percent foreign ownership in some private sectors such as information technology businesses' that focused primarily on exports (Panagariya 2005:15). The foreign ownership limit was also raised in aviation, banking, telecom, and real estate ("Deal Tracker" 2005) and in industries that were previously in the public

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[20] Following these policy changes, mergers and acquisitions increased in key economic sectors such as petroleum and banking. For example, Reliance Industries, India's biggest private sector firm acquired a petroleum unit in a stock transaction.

[21] In addition, the Securities and Exchange Board of India revised the amended Takeover Code in 2002 to deregulate the acquisition of significant shareholdings, takeovers, share buy-backs, and insider trading (Som 2006:4156). Following these changes, the volume of securities issuances (e.g., stocks and bonds) rapidly increased. The largest increase in stock equity issuance occurred in 2002, which was more than two times higher than the previous peak in 1995 (Indian Economic Survey 2004-2005).

sector (e.g., insurance, pharmaceuticals, high demand consumer goods) ("Cross-Border M&As" 2005).[22]

Deregulation in the Banking Sector

Continued deregulation of finance in the first decade of the 20th century eliminated many distinctions between banks and financial institutions. Many of India's public sector financial institutions were transformed into commercial banks or non-banking financial corporations. After state managers enacted the Transfer of Undertaking and Repeal Act, the Industrial Development Bank of India incorporated as a private corporation. Similarly, the Industrial Credit and Investment Corporation of India (ICICI) incorporated as ICICI Bank in 2002. Again, like deregulation in the United States (Prechel 2000), these new business policies allowed financial institutions to offer a wider array of financial products and services to individual customers (Daily Times 2002).

In 2005, deregulation of the financial sector increased the ceiling on foreign ownership in banks from 49 to 74 percent, which permitted foreign banks to establish subsidiaries in India (Indian Economic Survey 2004-2005). Because foreign banks had access to more capital and advanced technologies than many Indian banks, they quickly

[22] Deregulation in some industries was the outcome of a long-term strategy. For example, the 1994 National Telecommunications Policy opened up cellular as well as basic and value-added telephone services to foreign investors (Panagariya 2005:15). In February 2005, the ceiling on ownership of services in the entire telecom sector was raised from 49 percent to 74 percent (Indian Economic Survey 2004-05). Moreover, investment in certain internet services was raised to 100 percent foreign ownership. State managers also allowed 100 percent foreign direct investment in e-commerce.

increased their presence both in terms of numbers and market share. Whereas 148 foreign banks were located in India in 1990, this number increased to 259 in 2005. Also, new limits on credit financing increased the availability of credit to private industry and other economic sectors. Following these changes, the use of credit in medium and large industries increased from five to more than 17 percent in 2004 and 2005. In 2005, credit in the industrial sector rose to 46 percent (Mehrotra 2006:9).

The Effects of Deregulation on Mergers and Acquisitions and Foreign Ownership

The changes described here created the organizational and political-legal arrangements that permitted rapid change in ownership of Indian firms. Prior to passage of the Takeover Code in 1994, the majority of mergers and acquisitions (i.e., approximately 80 percent) were by Indian companies (Raju and Deepthi 2004).[23] Deregulation in the second policy period was followed by several changes in merger and acquisition activity.

In the 1980s, approximately 60 percent of the mergers and acquisitions were in the manufacturing sector, 32 percent were in the tertiary sector (e.g., telecommunications, power generation, consulting services), and less than 10 percent were in the primary sector (e.g., agriculture, mining, petroleum). Moreover, most mergers and acquisitions were domestic. In contrast, mergers by transnational

[23] The finance, metal and information-technology industries, which accounted for about 37 percent of total takeovers, are relatively small companies. As expected, capital-intensive industries accounted for the largest deal value. The petrochemical industry was first with 13.6 percent, followed by electronics and electrical with 13.2 percent and metal with 11.9 percent.

corporations steadily increased in the early 1990s and accelerated in the second half of the decade (see Figure 1.1). Between 1994 and 1997, nearly 40 percent of cross-border investment by transnational corporations occurred through mergers and acquisitions. Moreover, in contrast to the 1980s, the tertiary sector accounted for more than 60 percent of transnational mergers and acquisitions and mergers in the manufacturing sector fell to below 40 percent (Kong and Sakthivel 2004:34). Foreign direct investment in the tertiary sector rose from 5.2 percent in the 1990s to 58.7 percent between 1991 and 1997 (Park 2004:3552).

Subsequent deregulation was followed by further increases in mergers and acquisitions. After the Competition Act was revised in 2003, merger and acquisition activity increased by more than 100 percent in the following year (see Figure 2.2). Also, the size of the largest deals increased from $5.11 billion in 2003 to $12.3 billion in 2004. The largest number of corporate combinations occurred in the technology sector followed by healthcare, biotechnology, and pharmaceuticals. In 2005, China was the only other Asian country with more mergers and acquisitions (Ramanujam 2006). In addition to mergers and acquisitions by transnational corporations, several family-owned business groups pursued mergers and acquisitions, organized these companies as subsidiaries, and incorporated them into the *multilayer subsidiary* form. Rayon corporation (i.e., part of the Aditya Birla Group) established ownership control of PSI Data Systems in July 2001 by acquiring just over 50 (i.e., 50.35) percent of its stock (Varadarajan 2001). The embeddedness of the layered-subsidiary form in these political-legal arrangements allowed Rayon to increase its expertise in the crucial and expanding software development segment of the economy through simple stock transactions and incorporating the acquired companies as subsidiaries.

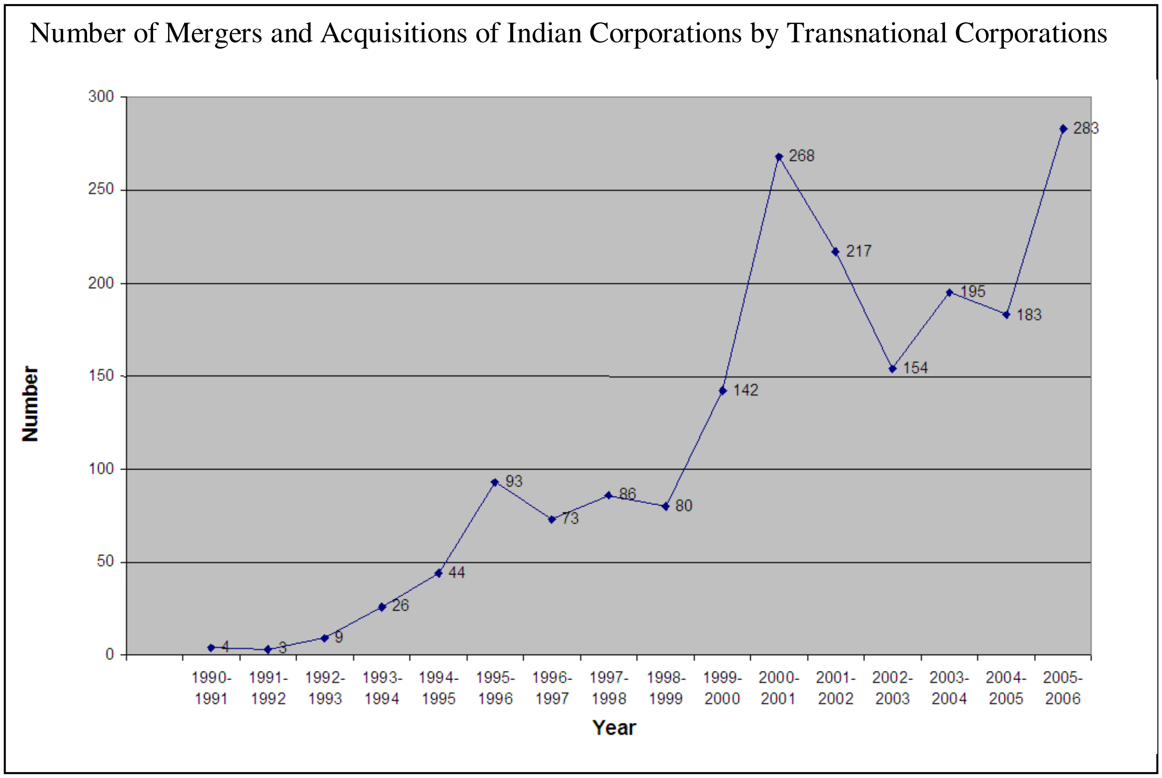

Figure 2.2 Number of Mergers and Acquisitions of Indian Corporations by Transnational Corporations, 1990-2005
Source: SDC Platinum-Mergers and Acquisitions

Similarly, after deregulation, the Birla and Tata family-owned business merged with AT&T to create one of the largest communication corporations in India. Then, in anticipation of the enactment of the 2002 Competition Act, two of the largest firms in the telecommunication industry, BPL Communications and Birla-Tata AT&T agreed to merge. This *multilayer subsidiary* corporation created the country's largest cellular service joint-venture company in India. According to the vice-chairman of JP Morgan Stanley, who was a financial advisor to the merger, "the consolidation took place in order to increase scale, cost effectiveness and the creation of a larger resource base" (Maitra and Jayakar 2001). Deregulation had important benefits for large corporations; the extensive resource base of the parent company increases their capacity to raise capital from debt and equity markets. This gave them a clear advantage over smaller companies.

Foreign ownership also increased during this period of deregulation (see Figure 2.2). During the first policy period (1991-1996), the number of mergers and acquisitions of Indian companies by transnational corporations gradually increased from four in the year prior to deregulation (1990) to 93 in 1995. The second policy period (1997-2001), which included adoption of the new Takeover Code in 1997, resulted in a rapid upswing in mergers and acquisitions that reached 268 in 2000. After a downturn in the number of mergers and acquisitions in the third policy period (2002-2005), which included the Competition Act, foreign mergers and acquisitions reached a record high of 283 in 2005. As Figure 2.2 shows, transnational corporations rapidly increased their ownership of Indian corporations during this period of rapid deregulation.

Findings

The analysis here shows that big business mobilized politically to change the political-legal arrangements in which corporations are embedded in order to advance their capital accumulation agendas. These political-legal changes were followed by a rapid increase in mergers and acquisitions. Whereas the average annual number of mergers and acquisitions between 1973 and 1990 was approximately 32, after the economic crisis and initial deregulation between 1991 and 1995, they increased to 90. After the stock market decline and further deregulation, the average number of mergers and acquisitions per year increased to 156 between 1996 and 2003 (see Figure 1.1).[24]

Some of the specific findings of this historical-qualitative analysis served as a basis for the variables selected in the quantitative analysis: First, mergers and acquisitions increased with the adoption of neo-liberal reforms. Deregulation of the economy changed the non-competitive environment of Indian firms, by attracting new venture and foreign capital. Companies in India were forced to consolidate their position in the industry or face the risk of being taken over by another firm. In 1990, the Indian economy was dominated by family-owned corporations and state-owned enterprises. By 2006, foreign individuals and corporations owned stock in more than 1,000 Indian companies, and 125 U.S. Fortune 500 companies had set up research and development subsidiaries in India (Das 2006).

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[24] The rapid increase in mergers and acquisitions during this drop in the stock market is consistent with previous analyses, which shows that weak or unpredictable markets deter capitalists from making investments in new productive capacity. Under these conditions, corporations pursue mergers and acquisitions in order to consolidate existing productive capacity (Prechel and Boies 1998:332).

Second, corporate consolidation was facilitated by the *multilayer subsidiary* form because it reduces the cost of mergers and acquisitions. Instead of purchasing 100 percent of a firm, parent companies can establish ownership control by purchasing just over 50 percent of the stock in a company and incorporate it as a subsidiary corporation. Also, it allowed management to raise foreign equity capital by issuing stock in their subsidiary corporations. This corporate form made it easier for foreign individuals, institutional investors, and corporations to invest in Indian corporations because they can purchase stock in the parent company or its many subsidiary corporations.

Third, mergers and acquisitions increased with the deregulation of financial and equity sectors. New state structures gave companies the freedom to raise equity, both domestic and foreign, while protecting investors. Between 1990 and 2001, equity finance became one of the largest sources of external capital for Indian corporations (Shirai 2002). The decrease in government ownership and privatization of banks and financial institutions made it possible for corporations to access private debt and commercial paper to mitigate their capital dependence. In addition, banks and financial institutions were permitted to finance acquisitions through bonds or debentures (Dasgupta n.d.). While the amount of equity finance raised has been large, Indian firms are still dependent on debt to finance their ventures. For the year ending March 2002, external financing accounted for 56 percent of total corporate funds raised, with slightly more than two–fifths of this from capital markets (including bonds and debentures). The average debt-to-equity ratio for Indian companies was at 1.2 in 1996 which then increased to 1.4 in 2002, close to the 1990 level (Topalova 2004).

CHAPTER III

THEORETICAL PERSPECTIVES AND HYPOTHESES

This chapter develops hypotheses for the research on mergers and acquisitions with two goals in mind. The first is to identify those factors that are considered to be important in explaining a firm's decision to be an acquirer within previous literature. The second is to develop hypotheses that will be tested in the current study. There are relatively few sociological studies of mergers and acquisitions in India. Researchers, who have examined mergers and acquisitions in India and elsewhere, mostly tend to follow the economic efficiency model.[1]

Previous Research on Mergers and Acquisitions

The focus of most Indian research is on examining the relationship between economic conditions or corporate financial characteristics and merger and acquisition activity. Studies have analyzed the characteristics of mergers in terms of the structure of mergers, nature of mergers, which firms are likely to be acquiring, the role of foreign direct investment, and the role of acquisitions in the growth of assets and sources of financing growth (Beena 2000; Kumar 2000; Dasgupta n.d.). An economic rationale is then used to explain these characteristics. For example, Beena (2000:31) suggested that

[1] Research on mergers and acquisitions in the United States has examined the reasons behind the economic efficiency of mergers. They observed the relationship between economic conditions and merger activity (Steiner 1975; Melicher, Ledolter, and D'Antonio 1983; Becketti 1986; Golbe and White 1988).

restructuring occurred because of two reasons: First, consolidation was aimed at increasing size, to derive marketing advantages and to obtain financial benefits for shareholders. Second, production plans were linked to those of related firms (i.e., to obtain synergy that is associated with vertical mergers).

A common feature of the studies is the use of financial ratios to predict corporate takeovers (Beena 2000; Kaur 2002). The studies concluded that the main motives for mergers and acquisitions is economic: (1) to increase the equity size that can be used to borrow resources for modernization (Beena 2000; Kaur 2002); (2) to achieve economies of scale; (3) to gain efficiency through synergies; (4) to minimize risk through diversification; and (5) to achieve short-term financial gains from imperfect capital and foreign exchange markets (Bhoi 2000).

Although research on Indian corporations has examined the relationship between mergers and acquisitions and the external environment, insufficient attention has been given to historical transitions[2] in the political-legal environment of corporations. That is, they tend to view certain periods, for example, the "takeover period" (Kaur 2002) or "increase in foreign direct investment period" (Kumar 2000) as isolated events rather than viewing them as interdependent sequences of events. In addition, these studies do not examine departures from previous regulatory environments. Further, extant research lacks in systematically analyzing the reasons behind firms' merger and acquisition activity in the post-liberalization era, specifically, the period after 2000.

Sociologists examining mergers and acquisitions in the U.S. have shown that

[2] According to Abbott (1997), transitions are stages along historical trajectories and radical shifts. Trajectories refer to interlocked and interdependent sequences of events that produce patterned action-orientations.

network and institutional variables affect merger activity. Studies have analyzed the role of financial institutions (Stearns 1986), regulatory influences and changes in the political and economic environment (Fligstein 1990; Stearns and Allan 1996; Dobbin and Dowd 2000; Morris 2000, 2004, 2005, 2007), inter-corporate networks and organizational imitation (Haunschild 1993), and relations between owners and managers and intra-elite relationships (Davis and Stout 1992; Palmer et al. 1995; Palmer and Barber 2001). Studies have also examined which organizations are likely to be acquired (Davis and Stout 1992; Palmer et al. 1995; Dobbin and Dowd 2000; Wheelock and Wilson 2000; Morris 2000, 2004, 2005) and which firms are likely to be acquiring organizations (Pfeffer 1972; Haunschild 1993; Palmer and Barber 2001; Wheelock and Wilson 2002; Morris 2000, 2004, 2005).

The limited research on mergers and acquisitions among firms in India from a sociological perspective limits my capacity to explain the process, while presenting several research opportunities. First, mergers and acquisitions from a sociological perspective have been studied, predominantly, by researchers in developed economies. Since the dynamics of organizational change are different in emerging economies[3], this study is exploratory in nature i.e., it is an attempt to examine which of the organizational theories' in sociology and variables will best explain the case of mergers and acquisitions among Indian firms. Second, this study moves beyond previous studies on

[3] According to Hoskisson, Eden, Lau and Wright (2000), an emerging economy is defined as a country that meets two conditions: a rapid rate of development in the economy and state policies that favor economic liberalization and the adoption of a free-market system.

merger and acquisition activity, which tend to draw primarily on economic theories and focus on efficiency.[4]

Hypotheses Relating to Mergers and Acquisitions

In this section, I develop hypotheses from the resource dependence perspective that addresses mergers and acquisitions. I provide a brief outline of the general propositions of resource dependence theory and the ways in which firm-level variables can be integrated into the theory's explanation of organizational change. I then derive hypotheses to explain a firm's decision to acquire another firm during the three policy periods (i.e., 1991 to 1996, 1997 to 2001 and 2002 to 2005).

Resource dependence theory is appropriate to study mergers and acquisitions in emerging markets because firms and the environments' in which they are located are characterized by a scarcity of resources. Emerging markets are characterized by "poorly developed financial markets, weak institutions for the distribution of capital, volatile economic development and low availability and high cost of capital" (Hitt, Dacin, Levitas, Arregle and Borza 2000). Firms in emerging markets have to obtain resources in order to maintain their competitive advantages and thereby, ensure their survival.

When discussing mergers and acquisitions, it is important to understand the definition of the acquiring firm in the transaction process. The acquiring firm is the one that attempts to buy another firm. The acquiring firm is one in which its charter or identity continues following the merger or acquisition transaction (Morris 2000, 2005).

[4]The research questions asked in previous studies on mergers and acquisitions in India have been economic or financial in nature or of significance to strategic management.

Resource Dependence Theory

Resource dependence theory conceptualizes organizations to be pro-active in attempting to deal with the uncertainties in their environment. Organizations are pro-active in that they attempt to "alter the system of constraints or dependence confronting the organization" rather than merely reacting to the uncertainties in obtaining resources in their environment (Pfeffer and Salancik 1978:267). Thus, the theory has a strong conception of social action. By social action, I refer to action taken by firms (i.e., social actors) to bring about change in their strategy or structure[5]. Thus, "the way by which this theory explains social action is useful in understanding how it conceptualizes organizational change" (Morris 2000).

There are two dimensions of resource dependence theory that I use to explain organizational change. First, since the primary purpose of organizations is to survive[6], the scarcity of resources (i.e., capital) within the organization and the competition for resources in the external environment constitute constraints to which an organization will be forced to respond (Pfeffer 1972, Pfeffer and Salancik 1978). Second, an organization, by controlling certain resources, is able to reduce its resource dependence on other organizations in the environment and thereby, undertake change. A firm, both by, possessing and controlling certain resources and enforcing rules regarding access to scarce resources is able to increase its leverage in inter-organizational relationships (Pfeffer and Salancik 1978).

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[5] Organizational change includes change in both the strategy and structure of the organization (Chandler 1962). For purposes of this dissertation, I will refer to the change in strategy (i.e., mergers and acquisitions) among organizations.

[6] Resource dependence theory contends that the ultimate goal of the organization is to survive.

The focus of the theory is on the interdependencies that occur through resource exchange between an organization and other groups in its environment (Pfeffer and Salancik 1978; Pfeffer 1972)[7]. Since internal and external constraints on the availability of capital constitute uncertainty for the organization in terms of access to resources, they will alter their structure and patterns of behavior as a response to these constraints. According to Prechel (2000), organizational characteristics such as financial instability and small size threaten the survival of the organization and this leads to organizational change. In order to reduce or avoid uncertainty, organizations work towards achieving two objectives: First, they attempt to acquire control over resources that will minimize their dependence on others. Second, they try to obtain resources that will maximize the dependence of other organizations on them (Ulrich and Barney 1984).

Capital is one among many resources that is crucial to the survival of the organization. The qualitative analysis found that Indian companies were highly leveraged, had low cash flows and were highly inefficient because of the protectionist policies of the State prior to the adoption of neo-liberal reforms in 1991. Debt, declining earnings and inefficiency will be used as variables to measure the capital dependence of a firm and assess their effect on change in strategy among organizations. The use of number of subsidiaries as a variable is to understand whether firms that transformed to

[7] In order to achieve stability and predictability in organization-environment relationships, firms grow (Katz and Kahn 1966) and one form of growth is through merging with or acquiring another organization (Pfeffer and Salancik 1978:114). Pfeffer and Salancik (1978) talk about three kinds of mergers. Vertical mergers represent a method of obtaining control over resources that are vital to the operation of the firm. Horizontal mergers represent a way of achieving dominance to increase the power of the firm in exchange relationships and to reduce uncertainty generated from competition. Diversification represents a method of decreasing the dependence of the firm on other dominant organizations.

the *multilayer subsidiary* form (as revealed by the qualitative analysis) were more likely to acquire.

Debt and Acquisitions

Debt lowers the amount of investment capital available to a corporation (Prechel and Boies 1998:336; Prechel 1997a, 1997b). This condition constrains the capacity of management to finance future investments. The interest payment associated with high debt can reduce the profit levels of a firm and also, threaten a corporation's chances of survival by limiting cash flow and restricting access to capital with low interest rates (Prechel, Morris, Woods, and Walden 2008:863). Firms in India were excessively leveraged (i.e., having more debt as compared to equity) at beginning of the reform process (i.e., 1991) because of two factors. First, institutional finance was highly subsidized and firms took on as much debt as was permissible. Second, the risks involved in operating a business in a protected economy were low and thus, firms could take more risks on the financial side (Varma 1998)[8].

Some researchers have used the variable of capital dependency to explain acquisitions in the banking industry (Morris 2000, 2004, 2005; Wheelock and Wilson 2000, 2002). Morris, in her study, found that capital constraints faced by a bank was the only variable to have a consistent effect on change in strategy and structure among banks across policy environment periods. A bank with high debt levels faces the risk of being

[8] The total corporate debt of developing countries of the East Asia and Pacific region grew at a compound annual rate of 16 percent between the end of 1990 and the end of 1997. The debt-equity ratio, valued at the market price of equity, rose from 3.8 at the end of 1990 to 4.2 at the end of 1997 (Ratha, Mohapatra and Suttle 2003).

taken over by a regulator and thus, undertakes a merger and/or acquisition. A firm with high debt levels faces the risk of losing its equity capital because shareholders might threaten to sell their stocks if they do not get a good return on their investment. According to Haunschild (1993), a firm with more debt compared to equity was more likely to undertake vertical and conglomerate acquisitions. Thus, a firm with high debt is more likely to acquire another firm.

Hypothesis 1: A firm with high debt is more likely to acquire another firm in order to overcome its capital dependence.

Declining Earnings and Acquisitions

Earnings are an indication that a firm has cash flow to re-invest in projects and serves as a buffer against uncertainties in the environment. For an investor, earnings are important because they give an indication of the company's expected future dividends and its potential for growth and capital appreciation.

Declining earnings are manifested as higher capital dependence (Morris 2000; Wheelock and Wilson 2000, 2002). In order to reduce capital dependence, a firm with low earnings will undertake an acquisition with the expectation that the transaction will increase its future profits and will improve its market valuation[9]. Based on resource dependence theory’s proposition that constraints on capital promote organizational

[9] Agency theorists maintain that excess free cash flow (i.e., cash flow in excess of what is required to finance profitable investment opportunities) subjects managers to opportunistic behavior (Jensen 1986). Managers make unprofitable investments in order to retain their positions rather than reward shareholders with dividends and stock buy-backs.

change, a firm with low earnings is more likely to undertake an acquisition in order to improve its financial position.

Hypothesis 2: A firm with declining earnings is more likely to acquire another firm in order to overcome its capital dependence. .

Inefficiency and Acquisitions

A firm is considered to be efficient if it produces an output with minimum amount of waste, expenses and effort. According to Chandler (1962), efficiency is defined as ratio of inputs like labor and raw material to outputs (p.37). Pfeffer and Salancik (1978) contend that the efficient allocation of resources within an organization is a measure of how well the organization is performing[10]. An organization has to efficiently allocate resources in order to gain acceptance or social legitimacy from the external environment; given the fact that organizations are dependent on the external environment for survival. According to Pfeffer and Salancik (1978), this involves the issue of effectiveness. Effectiveness represents an "external standard of how well an organization is meeting the demands of the various groups and organizations that are concerned with its activities" (Pfeffer and Salancik 1978: 11)[11]. Thus, a firm that is inefficient will also be ineffective in obtaining resources from the external environment.

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[10] Indian businesses experienced major changes in profitability during the period 1989–2002. In the second half of the 1990s, profitability declined to levels in the pre-reform period (Topalova 2004). Prior to deregulation, lack of competition allowed many of the state-owned enterprises and family-owned businesses to operate inefficiently.

[11] The reason for not focusing on transaction cost economics in this analysis is because it has a weak conception of social action. According to transaction cost economics, efficiency is the main and only systematic factor responsible for the organizational changes that have occurred (Williamson 1975). Organizations are conceptualized as reacting to their environment by changing themselves to absorb transactions to become more efficient.

Inefficiencies in the allocation of resources constitute an internal constraint to which an organization is forced to respond[12]. Thus, a firm that is inefficient is more likely to undertake an acquisition in order to overcome internal and external constraints on resource availability.

Hypothesis 3: A firm that is inefficient is more likely to acquire another firm in order to overcome its capital dependence.

<u>Subsidiaries and Acquisitions</u>

According to resource dependence theory, the control of certain resources helps a firm to deal with uncertainties in the environment. For example, a firm with more assets (i.e., organizational size) is more likely to grow because it is not dependent on other organizations in the environment for resources. Size cushions the organization against failure and also, increases the dependence of other organizations on it. On a similar note, a firm with more subsidiaries is better able to handle uncertainties in the environment. According to Mudambi and Pederson (2007), units (i.e., subsidiaries) that control resources are strategic in terms of managing critical relationships between the firm and its environment.

Theorists have shown the strength of the resource dependence framework in explaining change in the structure of organizations (Prechel 1997a, 1997b, 2000; Prechel and Boies 1998; Prechel, Boies and Woods 1999). Corporations changed from the multidivisional to the *multilayer subsidiary* form to reduce their dependence on debt

[12] In a study of the relationship between efficiency and acquisition activity, it was found that efficient firms tend to acquire less than inefficient firms (Leverty and Qian 2009).

financing; in contrast to divisions, management could issue stock in their subsidiaries (Prechel 2000).

The *multilayer subsidiary* form facilitates mergers and acquisitions in two important ways: First, corporations can acquire other corporations or subsidiary corporations by purchasing just over 50 percent of their stock to establish ownership control. This is in contrast to, for example, the multidivisional form, which requires 100 percent ownership of a business unit to incorporate it into the company. Second, because subsidiary corporations are legally independent entities, they can issue stock. This characteristic allows parent companies to use their subsidiaries to raise equity capital by issuing securities (e.g., stocks, bonds) in them.

Prechel, Boies and Woods (1999), found a significant relationship between a company changing from a multidivisional form to a *multilayer subsidiary* form and merging and acquiring. On a similar note, the number of first-level subsidiaries of a firm was significantly related to their diversification strategies (Prechel et al. 2008). This is because a subsidiary is an independent unit by itself and helps the parent company to overcome some of the constraints of depending on external capital markets. In India, firms adopted the *multilayer subsidiary* form when several restrictions on foreign ownership in most economic sectors were removed. Therefore, a firm that changes to the *multilayer subsidiary* form is more likely to acquire another company.

Hypothesis 4: A firm with more subsidiaries is more likely to acquire another firm.

<u>Age, Size, Intra-industry M&As and Acquisition Activity</u>

I have included age of the firm, size of the firm and intra-industry mergers and acquisitions as controls as organizational theories consider them vital to explain acquisition activities of firms. However, the findings from previous research conflict over their relationship to organizational change.

The size of a firm is considered to be a significant factor in a merger and acquisition transaction. Knowledge of corporate behavior and activity tells us that it is large firms that are most actively involved in undertaking huge acquisitions. According to resource dependence theorists', larger firms are more likely to acquire smaller firms. Pfeffer and Salancik (1978) argue that large organizations have more resources than small organizations to deal with survival threats. Haunschild (1993) found that large firms are more likely than small firms to be buyers[13]. Prechel (2000), in his book *Big Business and the State* states that the largest industrial corporations in the United States pursued mergers and acquisitions in the 1980s in response to increasingly competitive markets (p.236). Prechel, Boies and Woods (1999) found a positive relationship between mergers and acquisitions and corporate form change. They also found that the largest industrial corporations were more likely to change their corporate form. In contrast, the population ecology perspective posits that as organizational size increases, inertia also increases (Hannan and Freeman 1984:159)[14]. Researchers argue that size of

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[13] Managerialists (e.g., Chandler 1962) argue that increased size contributes to change, as growth not accompanied by structural change undermines efficiency.

[14] According to Hannan and Freeman (1984), organizations are hard-pressed to adjust their structure as they experience relative inertia. They experience problems in adaption because of internal and external factors. Internal factors that cause structural inertia are sunk costs in human and physical capital, internal

the firm acts as a barrier to organizational change. Thus, firm size is included in the analysis to control for its effect on change.

The year of incorporation is included to control for the effects of age. According to population ecology, older organizations are limited in their ability to respond to changing environmental demands. Older firms face internal and external barriers to adaptation. As older organizations have formalized their internal relationships, developed standardized routines and networks of interdependencies with other social actors in the environment, and institutionalized their leadership and power distributions, reproducibility of structure and inertia increases with age (Hannan and Freeman 1984:157). In contrast, some researchers argue that age is not an impediment to change. Morris (2000, 2005) found that older banks are more likely to be acquirers in bank mergers (p.173). Prechel et al. (1999), in their examination of corporate form change found that the oldest industrial corporations in the United States changed to the multilayered subsidiary form (MLSF).

Intra-industry mergers and acquisitions are included to control for their effect on acquisition activity as institutional theory and resource dependency posit different motives for growth strategies within an industry. Institutional theory contends that when organizations face uncertainty in the environment, they respond by imitating the strategies of other successful organizations. According to Meyer and Rowan (1977), organizations that are isomorphic with their institutional environment are more likely to

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politics and dependence on the success of previous structures or strategies. External barriers to change include barriers to entry and exit from markets and public legitimation of organizational activity (Hannan and Freeman 1984:149). The theory does not claim that organizations never change; rather they lag behind changes in the environment (Hannan and Freeman 1984).

receive resources essential to their existence than those that are not. Institutional isomorphism conveys legitimacy of the organization to external actors. According to resource dependence theory, mergers and acquisitions within an industry, represent attempts to either gain control over organizations with which one does business or over competitor organizations to increase the firm's dominance in exchange relationships. Resource dependence theorists argue that both symbiotic interdependence and competitive uncertainty[15] are important in developing predictions about the extensiveness of within-industry mergers (Pfeffer and Salancik 1978:123).

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[15] According to Pfeffer and Salancik (1978), symbiotic interdependence results when organizations exchange resources and competitive interdependence results when organizations are competing for the same resource(s).

CHAPTER IV

SAMPLE, OPERATIONALIZATION OF VARIABLES AND METHODOLOGY

Sample Selection

The top 500 firms in 2005, ranked according to total assets, were used as a sample for this study. These firms are listed on the major stock exchanges in India that include the Bombay Stock Exchange and the National Stock Exchange[1].

Data on acquisition activity (dependent variable) and data on firm-level characteristics (independent variables) for the 14 year period were selected from two separate sources (Refer to the section on data sources). The two databases differed in the way they reported the names' of the companies. Therefore, I assigned unique ID numbers to the companies in each of the data sources' in order to compare and obtain a common list of companies. For each year, the companies with independent variables were ranked according to total assets. The list with the dependent variable was then merged with the list of independent variables for each year. A list-wise deletion of cases[2] with missing information on the independent variables resulted in a total of 4970 firm-year observations (Refer to Appendix A for detailed information about the data collection process).

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[1] The Bombay Stock Exchange is the largest and oldest stock exchange in India and has around 5000 companies listed on it as of November 2002. There are around 1500 companies listed on the National Stock Exchange.

[2] I performed a missing data analysis to check whether the pattern of missing data was systematic or random. T-test results showed that some of the missing data were missing completely at random and some were not.

Operationalization of Variables and Data Sources

The dependent variable is dichotomous indicating whether or not a firm will undertake an acquisition in year *t*. It is coded as 1 if the firm makes an acquisition (i.e., acquirer) and 0 if the firm does not make an acquisition (i.e., not an acquirer). Data for the dependent variables was obtained from SDC-Mergers and Acquisitions (SDC-M&A)[3] and Thomson One Banker[4].

Several independent variables are included in the analysis to test the hypotheses (See Table 4.1 for a list of how I operationalized the concepts from resource dependence theory). The source for most of the financial data is from the Prowess database[5]. The independent variables are operationalized as follows:

Debt is a measure of the constraints faced by a firm in investing capital on growth strategies and is operationalized as Debt-to-Equity Ratio. Debt to equity ratio is defined as the ratio of total borrowings to net worth.

Earnings are a measure of the cash flow of a firm and are operationalized in terms of return on capital employed. Return on capital employed is defined as the ratio of Profit after taxes (net of non-recurring transactions) to average capital employed.

Efficiency is a measure of the operating profit margin of a firm. Operating profit

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[3] SDC-Mergers and Acquisitions is transaction based. It provides a comprehensive coverage of corporate transactions that have taken place all over the world. All corporate transactions involving at least 5 percent of the ownership of a company where the transaction was valued at $1 million or more (after 1992, deals of any value are covered) or where the value of the transaction was undisclosed are included in the database.

[4] Thomson One Banker provides access to financial data on public companies, as well as merger and acquisition information and market data.

[5] Prowess is a database of large and medium Indian firms. It contains detailed information on over 10,000 firms. Financial information for each company covers 1500 data items. This database is a product of the Center for Monitoring the Indian Economy (CMIE).

margin is operationalized as the profitability margin ratio that is derived by taking into account the profits before depreciation, interest and taxes as a percentage of gross sales (PBDIT). According to Prechel and Boies (1998:345), “although organizational researchers have not used operating profit margin as a measurement, it is consistent with widely held definitions of efficiency, the ratio of cost inputs to outputs produced” (Chandler 1962:37; Pfeffer and Salancik 1978:11; Williamson 1985:17).

A subsidiary is a measure of a unit within a firm that controls resources and a firm’s dependence on those resources. It is operationalized as a count of number of subsidiaries of a firm over the previous two years.

Table 4.1: Theories, Concepts, and Operationalization

Theory	Concept	Operationalization
Resource Dependence	Capital Constraints Debt	Debt to Equity Ratio
Resource Dependence	Capital Constraints Declining Earnings	Return on Capital Employed
Resource Dependence Transaction Cost Economics	Capital Constraints Inefficiency	Profit before Depreciation, Interest and Taxes
Resource Dependence	Control of Resources	Number of Subsidiaries
Resource Dependence Neo-institutional theory	Uncertainty in the Environment Imitation	Count of Intra-Industry Mergers and Acquisitions

Table 4.1 Continued

Theory	Concept	Operationalization
Resource Dependence Organizational Ecology	Size	Total Assets
Resource Dependence Organizational Ecology	Age	Year of Incorporation

The state-level or political-economic variable is the policy environment. The policy environment represents a period during which an important regulation or an amendment to a regulation was passed that affects corporate behavior (Morris 2000). The analysis includes three policy environment periods: 1991-1996, 1997-2001 and 2002-2005. During the first policy environment (i.e., 1991-1996), two important events occurred in corporation's political-legal environment. The first was the opening up of the economy and the second was the amendment of the Monopolies and Restrictive Trade Practices Act (MRTP) of 1969. The second policy environment (i.e., 1997-2001) witnessed the adoption of the Takeover Code. During the third policy period (i.e., 2002-2005) the Competition Act of 2003 replaced the MRTP Act of 1969.

Control variables

The analysis includes the following control variables. Size of the corporation is operationalized in terms of total assets, in thousands of dollars (Morris 2000:46). Age of the corporation is operationalized as original year of incorporation (Prechel and Boies 1998). Data for this variable was obtained from Prowess, Mergent Online, SDC-M&A and India-Infoline. In some databases, the year of incorporation reflects the most recent incarnation of the company. In the case of companies that are reorganized, the year of incorporation may not reflect the actual age of the company. It is for this reason that I used four databases to check for the initial year of incorporation. An intra-industry merger and acquisition pattern was obtained by counting the number of acquisitions completed by firms in a corporation's primary industry over the previous two years. Data for this variable was selected from Prowess, SDC-M&A and Thomson One Banker. Acquisition activity varies by industry and ownership. Thus, industry and ownership are controlled for in this analysis. The primary industry to which a firm belongs includes manufacturing, services, banking and finance[6]. Under ownership, the categories are Indian, Foreign, Private Indian, Private Foreign, Central Government, State Government and Joint sector[7].

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[6] The Prowess database classifies firms into economic activity groups based on their share in various products and services as reflected in the total sales of the firm.

[7] The Prowess database organizes firms under an ownership classification system. The system classifies firms broadly into government and private firms. Government and private sector firms are further classified into groups and sub-groups. A firm is classified into a group that it is most closely associated with.

Methodology

For the analysis of a firm's decision to undertake an acquisition, I used the discrete time event history model (Allison 1984). Discrete time event history methods are useful when the units of time are large i.e., data includes many years and when time-varying explanatory variables are incorporated into the analysis. This method has been used by previous researchers to study organizational change (Stearns and Allan 1996: Theresa Morris 2000, 2004, 2005).

In the event history model, the dependent variable indicates the odds of event occurrence[8]. I use the logistic regression function to examine how the odds of event occurrence depend on the independent variables and on time. The logit form of the model takes the form:

$$\log [P_{it} /(1 - P_{it})] = \alpha + x (t)' \boldsymbol{\beta}$$

where P refers to the conditional probability that individual *i* experiences an event at time *t*, given that the event has not already occurred to that individual, **x** is a vector of the set of the time-varying independent variables, and **β** is a vector of the unstandardized coefficients of the effects of the explanatory variables and **α** is a constant.

Standard survival models assume homogeneity i.e. all individuals are subject to the same risk as denoted by the hazard function. Acquisitions are repeatable events, and each acquisition is a decision with a complex strategy behind it. Since a firm can acquire more than once, the event of undertaking an acquisition more than once is defined as a repeated event (Allison 1984). A simple way to deal with repeated events is

[8] Odds indicate a ratio i.e., probability that an event will occur to the probability that an event will not occur in year *t*.

to treat the intervals between the events for each case as a separate observation. The intervals are then pooled together for all the cases (Allison 1984:51). In this study, the intervals are years and the cases are firms.

In the case of repeated measures on an individual, there might be unobserved factors which affect each of the observations recorded for a person. If the unobserved factors are not taken into account, they can lead to bias in the estimated coefficients and their standard errors (Teachman n.d.). Thus, I extend the logit model by including a random intercept for each firm to correct for unobserved heterogeneity. The random intercept accounts for variation, both, within and between firms.

I will use this method to run four models to analyze the impact of the independent variables. The first model will include all the years from 1991 to 2005 with dummy variables for the policy periods. The remaining three models will be analyses of each policy environment period (i.e. 1991-1996; 1997-2001; and 2002-2005). By performing analyses separately for each of the policy environment periods', one can compare the coefficients of the independent variables to see if their explanatory capacity varies across the policy periods'.

Lags are incorporated into the analysis. I lagged each of the independent variables (with the exception of year of incorporation) measuring firm performance on the dependent variable. Corporate decisions are generally made with recent data, likely end-of-the-year data from the previous year (Mason 1997). Further, mergers and acquisitions require regulatory approval. A lag of one year on the annual data of a firm preceding the actual occurrence of the event can sometimes fail to capture the information used by managers to make strategic decisions (Prechel and Boies 1998). Given these conditions, a lag of two years seemed appropriate for the study. For example, the likelihood of acquisition in any particular year, say 1992, is based on the mean value of the independent variable over the previous two years, i.e. 1991 and 1990.

CHAPTER V

FINDINGS OF THE QUANTITATIVE ANALYSIS AND DISCUSSION OF RESULTS

The final sample includes 486 individual firms and the longitudinal data set used in the final analysis consists of 4970 firm-year observations. On an average, there were 10 observations per firm. Table 5.1 reports descriptive statistics for the dependent and independent variables. Table 5.2 reports the correlation between the dependent variable and the independent variables.

Table 5.1 Descriptive Statistics of Dependent and Independent Variables

Covariate	Obs	Mean	Std. Dev	Min	Max
Dependent Variable					
Firm's Acquisition	4970	0.06	0.24	0	1
Independent Variables					
Debt-to-Equity ratio	4970	-0.06	1.23	-5.30	5.82
Return on Capital Employed	4970	2.95	0.86	-3.35	5.70
Profits before Depreciation, Interest and Taxes	4970	2.93	0.81	-2.08	6.90
Number of Subsidiaries	4970	2.35	3.94	0	34.00
Control Variables					
Total Assets	4970	5.21	1.48	0.52	11.33
Year of Incorporation	4970	1964	24	1865	2002
Intra-Industry Mergers and Acquisitions	4970	89.81	110.35	0	356.00
Industry Dummy					
Manufacturing	4970	0.74	0.44	0	1
Banking	4970	0.09	0.28	0	1
Services	4970	0.13	0.34	0	1
Finance	4970	0.04	0.20	0	1
Ownership Dummy					
Central Government	4970	0.12	0.32	0	1
Foreign	4970	0.03	0.16	0	1
Indian	4970	0.69	0.46	0	1
Joint Sector	4970	0.01	0.10	0	1
Private Indian	4970	0.08	0.27	0	1
Private Foreign	4970	0.07	0.25	0	1
State Government	4970	0.01	0.10	0	1

Table 5.2 Correlation Matrix of Dependent and Independent Variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Event	1.000							
2. Debt	-0.1004	1.000						
3. Earnings	0.041	-0.2431	1.000					
4. Size	0.1073	0.0282	0.0805	1.000				
5. Profits	0.0421	0.0456	0.3225	0.3407	1.000			
6. Subsidiaries	0.1912	-0.0946	0.0543	0.1679	0.0376	1.000		
7. Industry MA	0.1621	-0.1407	-0.1941	0.0373	-0.2485	0.1099	1.000	
8. Age	-0.0274	0.0607	-0.2053	-0.2886	0.0449	-0.0868	0.0197	1.000

Concerning the overall fit of the model, the Wald chi-squared statistics is used to test the hypothesis that all of the variables included in the acquisition model (except for the intercept) are simultaneously equal to zero. The chi-squared test value of 217.23 with significance at the .001 level indicates that we have sufficient information to reject the null hypothesis that all of coefficients except the intercept are equal to zero. In conclusion, the result indicates that the full model fits the regression equation significantly better than the null model.

Examination of the random effect parameter in the null model is a precondition for the event history logit model with a random intercept. The likelihood ratio test was used to examine the presence of the random effect component in the model. The .0001 significance level of the variance component for the random intercept indicates that firms differ in terms of their acquisition activity and the use of random-intercept logit model is appropriate. Table 5.3 reports the results of the event history logit model of acquisition activity.

Table 5.3 Maximum-Likelihood Estimates from the Event History Logit Model of Acquisitions

	Acquisition Activity							
	Whole Period 1991-2005		Period I 1991-1996		Period II 1997-2001		Period III 2002-2005	
Covariate	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Intercept	-10.171	(7.085)	-21.894	(26.259)	-19.089*	(11.648)	-1.507	(8.206)
Resource Dependency theory								
Debt to Equity Ratio (Debt)	-.149**	(.063)	-.193	(.261)	-.247**	(.118)	-.138*	(.079)
Return on Capital Employed (Earnings)	.229**	(.115)	.690	(.563)	.174	(.204)	.271*	(.146)
Profits before Depreciation, Interest and Taxes (Efficiency)	.340**	(.150)	.424	(.514)	.910***	(.235)	-.004	(.183)
Number of Subsidiaries	.112***	(.019)	.123**	(.053)	.111***	(.026)	.083***	(.023)
Control Variables								
Year of Incorporation (Age)	.001	(.004)	.006	(.013)	.005	(.006)	-.002	(.004)
Total Assets (Size)	.225***	(.074)	.281	(.248)	.298**	(.113)	.194**	(.098)
Intra-Industry Mergers and Acquisitions	.005***	(.001)	.002	(.006)	.010***	(.002)	.009***	(.002)

Table 5.3 Continued

	Whole Period 1991-2005		Period I 1991-1996		Period II 1997-2001		Period III 2002-2005	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Industry Dummy								
Manufacture	-.046	(.280)	.591	(.921)	.064	(.399)	-1.354***	(.525)
Banking	- .410	(.454)	-24.271	(67016.4)	-1.937***	(.775)	.696	(.588)
Finance	- .203	(.529)	-22.59	(98679.6)	-1.159	(.892)	.998	(.636)
Ownership Dummy								
Central Government	-.536*	(.318)	-.657	(1.12)	-.751	(.539)	-.662*	(.388)
Foreign	.509	(.425)	1.185	(1.087)	.688	(.615)	.173	(.540)
Joint sector	-1.120	(1.125)	-23.041	(17394.6)	-16.320	(2734.9)	-.388	(1.101)
Private Foreign	-.006	(.306)	.374	(.885)	.123	(.470)	-.304	(.402)
Private Indian	.015	(.338)	-22.098	(79021)	-.064	(.626)	-.096	(.383)
State Government	-.740	(1.118)	-23.066	(175621.4)	.217	(1.211)	-16.478	(3714.5)
Policy Period Dummy								
Policy Period: 1997-2001	.853***	(.229)	----	----	----	----	----	----
Policy Period: 2002-2005	.620**	(.306)	----	----	----	----	----	----

Table 5.3 Continued

	Whole Period 1991-2005		Period I 1991-1996		Period II 1997-2001		Period III 2002-2005	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Random Effects Parameters								
σ_u	.737	(.105)	1.610	(.401)	.803	(.203)	.518	(.244)
ρ	.142	(.035)	.441	(.123)	.164	(.069)	.075	(.066)
Model Fit Statistics								
Wald Chi2	217.23		16.19		103.72		70.63	
Number of Events	4970		1560		1831		1579	

Note: Services is the reference category for Industry and Indian is the reference category for Ownership.

Likelihood-ratio test of $H_o: \rho = 0$ $\chi^2_1 =$ 25.79 P value <0.0001

ρ : Fraction of variance due to the random effect component.

*   = significant at .10 level
** = significant at .05 level
*** = significant at .01 level (two-tailed test)
Note: Numbers in parentheses are standard errors

Discussion of Findings

Contrary to Hypothesis 1, debt has a negative effect on the odds of acquiring in the overall time period and all the three policy periods. The coefficient for debt is significant at the .05 level for the whole period (i.e., 1991-2005) and the second policy period (i.e., 1997-2001) and it is significant at the .10 level in the third policy period (i.e., 2002-2005). The coefficient is not significant in the first policy period (i.e., 1991-1996)[1]. For every percentage increase in debt to equity ratio, there is on an average a 1.42 percent ((-.149) * log (1.1) *100) = -1.42)[2] decrease in the odds of acquisition during the whole period. In the second and third policy periods, the odds of acquisition decrease on an average by 4.11((-.247) * log (1.1)*100) = -4.107) percent and 1.32 ((-.138) * log (1.1)*100) = -1.315) percent, respectively. With debt having a negative effect on acquisition activity in the second and third policy periods', it is possible to reason that the debt situation of firms was being scrutinized to a great extent in the new economic environment. Prior to the adoption of neo-liberal reforms in 1991, the Indian government (i.e., the State) had a policy of bailing out poorly performing companies. State-controlled banks and financial institutions that constituted a major source of external funding for the activities of firms, always, supported corporate management, irrespective of financial position of the firm. In the second policy period, debt decreased the likelihood of acquiring because of a decline in the inability of the State to fund firms. Private sector and transnational firms influenced the State to implement new regulations

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[1] Data for the first policy environment period (i.e., 1991-1996) had a lot of missing values and it was recorded that none of the variables, with the exception of number of subsidiaries, have any significance.

[2] Some of the independent variables like debt to equity ratio (debt), return on capital employed (earnings), profit before depreciation, interest and taxes (efficiency) and total assets (size) were log transformed.

in the banking and the financial sectors (i.e., Credit Authorization Scheme and Monetary Credit Policy Act of 1997). These regulations required that state-owned banks determine the risk levels' of firms whenever they attempted to borrow large amounts' of capital. In addition, the Indian government was forced to reduce its ownership stake in banks and financial institutions. In the third policy period, debt decreased the likelihood of acquisition with the privatization of banks and financial institutions. The number of foreign banks located in India increased from 148 in 1990 to 259 in 2005. Although these private and foreign banks increased the availability of credit, they placed more emphasis on the financial discipline of firms.

These findings support the view that firms with high debt to equity ratios have low borrowing capacity. According to Stearns and Allan (1986:54), financial institutions believe that corporations encourage irresponsibility when the debt ratios are high and subject them to excessive monitoring. Debt, also, decreases the discretionary power of managers to undertake acquisitions (Davis and Stout 1992: 613).

Contrary to Hypothesis 2, the coefficient for earnings is positive in the whole period and in the three policy periods. The coefficient is significant at the .05 and .10 level in the whole period (i.e., 1991-2005) and the third policy period (i.e., 2002-2005)[3], respectively. For every percentage increase in the earnings ratio, there is on an average a 2.18 ((.229) * log (1.1) *100) = 2.18) percent increase in the odds of acquiring in the whole period. The odds of acquiring increased by 2.58 ((.271) * log (1.1)*100) = 2.58)

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[3] According to a study conducted by Business Standard Research Bureau (2006), the corporate earnings of Indian firms has increased on an average from 20 percent to 25 percent between 2001 and 2006 because of steady economic growth.

percent in the third policy period. The finding does not support the hypothesized relationship between low earnings and acquisition activity. With earnings having a positive effect on acquisition activity in the third policy period, it is possible to reason that with an increase in the deal values' of merger and acquisition transactions and cross-border (i.e., transnational) merger and acquisition activity, only those firms with high cash flow were able to undertake such transactions. In addition, the Competition Act of 2003 defined market dominance in terms of assets of merged entities rather than market share of individual firms. It is plausible to reason that with this redefinition of market dominance, big firms with greater market share and more cash flow did not face regulatory constraints in undertaking an acquisition.

The findings' on earnings is consistent with the conclusion of Morris's study on change in strategy and structure among banks in the United States (2000). According to Morris (2000), "earnings can be perceived as a resource, rather than a constraint, which is essential for the survival of a firm". While banks and firms in general, have a different relationship to cash flow, in order to undertake an acquisition, it is important for any organization to have good cash flow.

Contrary to Hypothesis 3, the coefficient for efficiency is positive and is significant in the whole period (i.e., 1991-2005) and the second policy period (i.e., 1997-2001) at the .05 and .01 levels', respectively. For every one percent increase in efficiency, there is on an average a 3.24 ((.340) * log (1.1) *100) = 3.24) percent increase in the odds of acquiring in the whole period. The odds of acquiring increased by 8.67 ((.910) * log (1.1) * 100) = 8.67) percent in the second policy period. The finding does not support the resource dependency argument that inefficient firms are more likely to acquire[4].

With efficiency having a strong effect on acquisition activity in the second policy period (i.e., 1997-2001), it is possible to reason that firms increased their efficiency by divesting their unproductive and non-core businesses in the new policy environment. Prior to deregulation, the lack of competition enabled state-owned firms and large family-owned businesses to diversify and become huge conglomerates that were controlled by inefficient management. With the adoption of neo-liberal reforms and increase in the percentage ownership of domestic companies by transnational corporations, it was important for firms to restructure their businesses' and management teams in order to survive. Although firms were becoming efficient, they were still small in scale and market share compared to the transnational corporations and their subsidiaries that were establishing their base in India during this period. It is possible to reason that firms that were efficient undertook acquisitions to increase their market share and compete with transnational corporations. Further, with the implementation of the Takeover Code in 1994 and a subsequent amendment in 1997, firms were required to improve their efficiency in order to avoid being taken over by another firm. In addition, the new regulation required firms to pay more attention to shareholder value.

Regarding the fourth hypothesis, the coefficient for total number of subsidiaries of a firm is positive and significant at the .01 level for the whole period (i.e., 1991-

[4] Previous literature (Levine and Aaronovitch 1981; Dobbin and Dowd 2000; Sorensen 2000; Kumar and Rajib 2007) shows that acquiring companies are more profitable than target or non-merging firms.

2005), the second (i.e., 1997-2001) and third (i.e., 2002-2005) policy periods. The coefficient is significant at the .05 level for the first policy period (i.e., 1991-1996). For each additional subsidiary in the overall structure of the ultimate parent company, there is on an average an 11.85 percent ((exp. (.112)-1)*100 = 11.85) increase in the odds of acquiring in the whole period. In the three policy periods, the odds of acquiring increase by 13.08 percent ((exp. (.123)-1) * 100 = 13.08), 11.74 percent ((exp. (.111)-1) * 100 = 11.74) and 8.65 percent ((exp. (.083)-1) * 100 = 8.65), respectively. These findings (i.e., in terms of statistical significance and large magnitude effect) provide strong support for the hypothesized relationship between number of subsidiaries of a firm and acquisition activity.

Control Variables: Findings

The effect of control variables on acquisition activity is summarized in the following section. The coefficient for age was in the expected direction but not significant during the whole period (i.e., 1991-2005) and the first (i.e., 1991-1996) and second (i.e., 1997-2001) policy periods. The coefficient was negative but not significant in the third policy period (i.e., 2002-2005).

The effect of size was positive and highly significant at the .01 and .05 levels' in the whole period (i.e., 1991-2005) and in the second (i.e., 1997-2001) and third (i.e., 2002-2005) policy periods. The hypothesis derived from resource dependence theory is supported. According to resource dependency theory, size is an indication of the power of the company to undertake organizational change. For every percentage increase in total assets, the odds of acquiring increased by 2.14 percent ((.225) * log (1.1) *100 = 2.14) in the whole period. In the second and third policy periods, for each percentage increase in assets, there is on an average a 2.84 ((.298) * log (1.1) * 100 = 2.84) percent, and 1.84 ((.194) * log (1.1) * 100 = 1.84) percent increase in the log odds of acquiring, respectively. These results (i.e., in terms of statistical significance and large magnitude) are consistent with the findings of Pfeffer and Salancik (1978), Palmer et al. (1995), Prechel et al. (1999), and Morris (2000). However, this finding is contrary to the proposition of organizational ecology theory, which suggests that size is negatively related to organizational change due to inertia. With size having a positive effect on acquisition activity, it is possible to reason that larger firms engaged in acquisitions as a result of changes in regulations governing mergers and acquisitions. The Monopolies and Restrictive Trade Practices Act of 1969 (amended) and the Competition Act of 2003 eliminated size as a criterion to determine dominance in an economic sector. Some of the largest companies in India (e.g., Hindalco, Aditya Birla Group, Tata Steel, Reliance Industries, Tata Motors, etc) are still very active in undertaking acquisitions. Examples include the acquisition of Corus (Europe's second largest steel producer) by Tata Steel in 2007, Hindalco's acquisition of Novelis (US based aluminum firm) in 2007, acquisition of Daewoo's truck manufacturing unit (South Korea), British Jaguar Land Rover and Trilix (Italy) by Tata Motors in 2004, 2008 and 2010, respectively.

The coefficient for intra-industry mergers and acquisitions is positive and significant at the .01 level in the whole period (i.e., 1991-2005) and the second (i.e., 1996-2001) and third (i.e., 2002-2005) policy periods. For each previous merger and acquisition in a firm's primary industry, the odds of acquiring increased by 0.5 ((exp. (.005)-1)*100) = 0.5) percent in the whole period. In the second and third policy periods, the odds of acquiring increased by one ((exp. (.010)-1*100) =1) percent, and 0.9 ((exp. (.009)-1)*100) = 0.9) percent, respectively.

A glance at individual industry and ownership categories, reveals that among industries, the odds of acquisition in the manufacturing sector compared to the services sector decreased by 74 percent ((exp. (-1.354)-1) * 100= -74) in the third policy period. In the banking sector with reference to the services sector, the odds of acquisition decreased by 86 percent ((exp. (-1.973) -1) * 100= -86) in the second policy period. The coefficients for the manufacturing and banking sector variables are highly significant at the .01 levels'. The effect of central government ownership was positive and significant at the .10 level for the whole period (i.e., 1991-2005). The coefficient was negative and significant at the .10 level in the third policy period (i.e., 2002-2005). The odds of acquisition decreased by 41.4 percent ((exp. (-.536) -1) * 100) = 5.5) in the whole period. The odds of acquisition decreased by 48 percent ((exp. (-.662)-1) *100= -48) in the third policy period. The decrease in acquisition activity among firms owned by the central government is consistent with the decrease in the dominance of this sector in India's economy. With the removal of entry barriers in several economic sectors following the liberalization of the economy, there has been a transition in the ownership of firms from being state-controlled to that of private and transnational control.

Summary of Findings

The quantitative analysis shows that the odds of acquisition increased in the second (i.e., 1997-2001) (β = .853) and third (i.e., 2002-2005) (β = .620) policy periods' as compared to the first policy period (i.e., 1991-1996). The effects of the independent variables were consistent across the policy periods, with the exception of earnings and profits before depreciation, interest and taxes. The coefficients for the independent variables in the first policy period (i.e., 1991-1996), with the exception of number of subsidiaries (β = .123), were not significantly different from zero. The statistically significant effect of the independent variables in the second policy period (i.e., 1997-2001) shows that profits before depreciation, interest and taxes had the largest impact on acquisition activity (β = .910) followed by debt (β = -.247) and number of subsidiaries (β = .111). The statistically significant impact of the explanatory variables on the dependent variable in the third policy period (i.e., 2002-2005) does not follow the same trend as second policy period. In the third policy period, earnings had the strongest impact on acquisition activity (β = .271), followed by debt (β = -.138) and number of subsidiaries (β = .083). On a comparative note, the effects of the independent variables in the second policy period were stronger than that of the effects in the third policy period. Among the control variables, age, size and intra-industry mergers and acquisitions had consistent effects across the policy periods. Size and intra-industry mergers and acquisitions had a statistically significant effect on acquisition activity. Size had the strongest effect on acquisition activity during the whole period (β = .225) and in the second (β = .298) and third (β = .194) policy periods, as compared to intra-industry mergers and acquisitions.

Resource dependence theory received some support, although the strength of the support varied with the policy period. Debt was statistically significant in the second (i.e., 1997-2001) and third (i.e., 2002-2005) policy periods but not in the predicted direction. The effect of earnings was not in the expected direction. However, earnings had a statistically significant impact on acquisition activity in the third policy period (i.e., 2002-2005). The number of subsidiaries of a firm was the only variable to have a statistically significant effect on acquisition activity in all the policy periods. The effect of efficiency was not in the predicted direction. However, in the second policy period (i.e., 1997-2001), efficiency (i.e., high operating profit margin) had a statistically significant effect on acquisition activity. Total assets had a statistically significant impact on acquisition activity in the second (i.e., 1997-2001) and third (i.e., 2002-2005) policy periods.

CHAPTER VI

CONCLUSION

The goal of this research study was to understand mergers and acquisitions among Indian firms from 1991 to 2005. In order to do so, I undertook a qualitative and quantitative examination of the factors that guide mergers and acquisitions in three policy periods (i.e., 1991-1996, 1997-2001 and 2002-2005)[1].

Qualitative Analysis: Summary and Theoretical Implications

For the qualitative analysis, I analyzed how historical changes in a corporation's political-legal environment affected merger and acquisition activity. The qualitative analysis begins with the supposition that organizational change is historically contingent. Historical contingency theory draws from capital dependency theory, which is a variation on resource dependence theory and suggests that periodic constraints to capital accumulation compel action (Prechel 1990:665). Capital dependency theory focuses on historical transitions that cause social change (Prechel 2000). Thus, I examined decay-exploration transitions in the social structure of accumulation to observe (1) the shift in the dominant economic sector and the internal composition of the dominant power bloc, and (2) how corporate property rights were redefined politically as a response to domestic economic conditions and globalization in each policy period (i.e., 1991-1996,

[1]According to Hoskisson, et al. (2000), the use of quantitative and qualitative data to examine firm dynamics in emerging economies is helpful in yielding new, relevant and reliable findings (p.257).

1997-2001 and 2002-2005) (see Table 2.1). The analysis showed that big business mobilized politically to change the political-legal arrangements in which corporations are embedded in order to advance their capital accumulation agendas. Some of the major changes that were brought about in India's political-legal environment had inter-related consequences in terms of their influence in attempting to resolve the economic crisis and policies regarding mergers and acquisitions: First, the introduction of neo-liberal reforms reduced the role of the state in industrial production, encouraged private enterprise and set the stage for multinational corporations to establish their base in India. Second, the adoption of the *multilayer subsidiary* form facilitated access to internal capital and foreign investment. Third, the deregulation of financial and equity markets increased the availability and decreased the cost of external capital.

The qualitative analysis helps to address a question that often arises in historical sociology: under what conditions do social actors act or not act based on an interest that they share (Tilly 1981). The analysis shows that decline in the rates of capital accumulation was the common concern that brought together different class fractions, like domestic and global business interests and transnational financial organizations in India. The different class fractions, then, attempted to resolve their economic concerns at the political level by influencing the state to adopt policies that will facilitate the process of capital accumulation. By acknowledging the relationship between the state and capitalist class fractions and by offering a theoretically firm conception of the relationship, historical contingency theory guides our understanding of the way historical conditions shape and transform business policies and subsequently, corporate change

(Prechel 1990, 2000).

Quantitative Analysis: Summary and Theoretical Implications

For the quantitative analysis, I derived hypotheses from resource dependence theory to examine factors that cause one firm to acquire another firm using meso level (i.e., characteristics of the corporation) variables.

Examining the central tenets of resource dependence theory in the quantitative analysis and a variation thereof (i.e., capital dependence theory) in the qualitative part, provides support for the argument that firms did not merely react to the conditions (i.e., constraints on capital) in their environment but attempted to alter them. Firms modified institutional arrangements that were unfavorable to the accumulation of capital by pressurizing state managers to implement policy that was favorable to merge and acquire. In addition, the findings provide support for the argument that firms attempted to alter their resource dependence by modifying their internal organizational structure. With the adoption of the *multilayer subsidiary* form by firms in India and with subsidiaries having a highly significant and positive effect on acquisition activity, the findings reflect that subsidiaries can be conceptualized as resources that are essential to the survival of the organization. Subsidiaries can be conceptualized as a resource because of their financial and organizational characteristics. From a financial perspective, it increases the capacity of management to raise capital without taking on additional debt, thereby reducing the dependence that one organization has on another. From an organizational perspective, it allows managements to increase their control over corporate entities (Prechel et al. 2008).

Overall, the resource dependence model predicts merger and acquisition activity in the different policy periods; all four independent variables in the model covering the entire period (1991-2005) are statistically significant. The entire period from 1991 to 2005 can be viewed as a period of intense deregulation because of the adoption of neo-liberal reforms, changes in regulations governing mergers and acquisitions, regulatory changes in the banking, financial and foreign direct investment sectors' and the privatization of several industrial sectors. A period of deregulation is a period of uncertainty for firms. During this period of uncertainty, firms controlling more resources (i.e., in terms of total assets[2] and number of subsidiaries) were more likely to undertake acquisition activity as they have leverage in organization-environment relationships. Firms are able to reduce their dependence on other organizations in the environment and increase the dependence of other organizations on them. On a similar note, the positive effect of earnings and efficiency on acquisition activity in different policy periods indicates that during periods' of uncertainty, an organization utilizes its internal resources before seeking external sources in order to undertake proactive change (Prechel 1998, 2000; Keister 2004). Thus, size of the firm, number of subsidiaries earnings and efficiency may be conceptualized as resources which confer power on the organization to undertake proactive change (Morris 2007).

The contrary relationship of the resource dependent variable (i.e., debt) to acquisition activity in the policy periods' indicate that during a period of uncertainty,

[2] The changes in the asset limit requirement as adopted by the amended Monopolies and Restrictive Trade Practices Act (MRTP) in 1991 and the Competition Act in 2003 reduced the amount of oversight that firms would be subjected to before undertaking a merger and acquisition transaction.

firms are less likely to undertake capital intensive strategies. However, previous literature does show that in turbulent environments', firms are more likely to undertake a merger and/or acquisition transaction than set up a new manufacturing facility. It is possible to reason that during periods' of uncertainty, firms which are capital dependent did merge with/or acquire smaller firms where the deal value of the transaction was not very high. If one were to incorporate deals values' as a variable in the analysis, it might be interesting to see whether companies that were capital dependent merged with/or acquired other companies that were being sold cheaply. This is something that will have to be explored in future research.

The positive effect of previous intra-industry M&As on acquisition activity in the different policy periods can also be explained from the resource dependence perspective. In transition economies, firms, initially, are more likely to imitate the strategies of other successful firms in the environment. However, adaption to new conditions requires a complete understanding of how other firms in the environment operate or how new regulations will impact their choice of strategy. Thus, firms are more likely to invest in training, research and learning in order to undertake merger and acquisition strategies. It is possible to reason that those industries that have a high percentage of acquisitions most likely have laws that support the activity and environments conducive to the spread of a particular growth strategy. Thus, a firm is likely to acquire another firm not simply to mimic other firms but because this strategy is likely to be successful in dealing with the environment of the particular industry (Morris 2007). The deregulation of certain industries like cement and telecommunications in India led to a wave of mergers and acquisitions in these sectors.

However, the examination of each specific policy period within this era of deregulation, which was conducted because the dummy variables for the policy periods is statistically significant[3], suggest that some variables in the model have more explanatory power in some policy periods than others.

Debt had a negative effect on the odds of acquiring in the second (i.e., 1997-2001) and third (i.e., 2002-2005) policy period. The coefficient for debt is negative but not statistically significant in the first policy period (i.e., 1991-1996). These findings suggest that debt did not financially constrain firms in the first policy period because the State had a policy of bailing out poorly performing firms. However, in the second policy period, debt became a financial constraint and decreased the likelihood of acquiring as there was a decline in the ability of the State to help firms. State-owned banks and financial institutions were criticized by capitalist class fractions for lending money to firms without assessing their risk levels'. These banks and financial institutions were a major source of external funding for firms and they always supported management, irrespective of the financial position of the firm. The Credit Authorization scheme and Monetary Credit Policy Act of 1997 required that state-owned banks determine the risk levels' of firms whenever they attempted to borrow large amounts of capital. Further, pressure from business associations like the Confederation of Indian Industry forced the State to reduce their ownership stake in banks and financial institutions and encourage

[3] The policy dummy for the periods 1997-2001 and 2002-2005 indicate that the odds of acquisition was significantly larger than the odds of acquisition in the period 1991-1996. The odds of acquisition in the second policy period (i.e., 1997-2001) and the third policy period (i.e., 2002-2005) increased by 135 percent and 86 percent, respectively.

privatization of these sectors. The argument was that state-controlled banks and financial institutions could not properly monitor firms because they had a conflict of interest as both creditors and shareholders. In the third policy period, debt decreased the likelihood of acquisition with the privatization of banks and financial institutions. The number of foreign banks located in India increased from 148 in 1990 to 259 in 2005. Although these private and foreign banks increased the availability of credit, they placed emphasis on the financial discipline of firms. Thus, firms with high debt were less likely to receive loans in order to pursue merger and acquisition strategies.

Return on capital employed (i.e., earnings) had a positive effect on acquisition activity in the third policy period (i.e., 2002-2005). The coefficient for earnings is positive but not statistically significant in the first (i.e., 1991-1996) and second (i.e., 1997-2001) policy periods'. It is not clear as to why earnings did not have an effect on acquisition activity in the earlier periods. A possible explanation could be that in the initial periods, those firms with more earnings were acquired by other firms, given the uncertainty in the environment. The findings for the third policy period suggest that within this stage, which witnessed a wave of high deal value and cross-border (i.e., transnational) merger and acquisition transactions, only those firms with high earnings are capable of undertaking such deals. In addition, the Competition Act of 2003 defined market dominance in terms of assets of merged entities rather than market share of individual firms. It is plausible to reason that with this redefinition of market dominance, firms with greater market share and more earnings did not face regulatory constraints in undertaking an acquisition.

Efficiency had a positive effect on acquisition activity in the second policy period (i.e., 1997-2001). The coefficient for efficiency was positive but not statistically significant in the first policy period (i.e., 1991-1996). In the third policy period (i.e., 2002-2005), the coefficient for efficiency was negative but not statistically significant. These findings suggest that prior to deregulation, the lack of competition enabled state-owned firms and large family-owned businesses to diversify and become huge conglomerates that were controlled by inefficient management. With the adoption of neo-liberal reforms in 1991 and increase in the percentage ownership of domestic companies by transnational corporations, firms were forced to restructure their businesses' and management teams in order to increase their profits. It is possible to reason that in the first policy period, firms were attempting to, first, improve their efficiency by divesting their unproductive and non-core businesses before undertaking mergers and acquisitions. In the second policy period, although firms were becoming efficient, they were still small in scale and market share compared to the transnational corporations and their subsidiaries that were establishing their base in India during this period. It is possible to reason that firms that were efficient undertook acquisitions to increase their market share and compete with transnational corporations during this period. Further, the adoption of the Takeover Code in 1994 and a subsequent amendment in 1997 had the effect of disciplining firms to use profits to increase shareholder value. It is surprising that efficiency did not have a positive effect on acquisition activity in the third policy period, taking in to account the competition from transnational corporations and the purpose of the Takeover code. It is possible to reason that efficient firms became targets of cross-border acquisitions that were on the increase in this policy period.

The total number of subsidiaries had a positive effect on acquisition activity and is the most consistent variable in the analysis; it is statistically significant in all three policy periods.

The competing theories of corporate change included in this analysis have a weak conception of social action and propose different mechanisms by which organizations act and change. The findings about age and size do not add to our understanding of the constraints that inertia has on organizational change. This stems from one of the weaknesses of population ecology in that it undermines the power that larger and older organizations possess.

Implications of the Study

This study has important implications for theories that attempt to explain mergers and acquisitions from a sociological perspective. First, it is important to understand the influence of context on firm behavior. Firms have the same motives but different means of achieving their goals in different contexts. This study reveals that while the behavior of firms in India has been unique on some dimensions, many firm motivations are universal. While capital constraints had a consistent and positive effect on change and strategy among banks in the United States, it did not do so in the Indian situation. Firms, both in the West and emerging economies, appear to be motivated by their desire to survive and reduce their dependence on external entities. This leads us to the second implication of this study and that is to assess the combined impact of external and internal constraints on accumulation of capital on acquisition activity. The assumption is that constraints that exist in the environment may undermine the ability of firms facing internal constraints to undertake change. For example, state-controlled financial institutions that charge high interest on loans may deter the motivations of a firm facing debt problems to undertake change. Finally, there is a need to review the motives that drive mergers and acquisitions with the increasing globalization of markets. The emergence of global markets has reduced the general level of dependency that any one firm has on others both at the levels' of economy and industry. The assumption is that firms seem to be motivated more by a desire to compete on the global level before achieving stability in their local economies'.

Limitations and Scope of the Study

This study has certain limitations. The data collection was conducted systematically and included a representative sample of firms. However, the data was limited because of the following reasons. First, during the initial phases of transition in the economy and subsequently, it is possible that firms in India did not report their company information. This affected the quality of the data used in the analysis. There were missing data problems which reduced the number of firm-year observations. Second, the limited availability of financial data limited my options with respect to the variables that I would have liked to use in the study. Although the results provide support for some of the ideas presented in the study, the findings should be interpreted in light of the limitations.

The study of mergers and acquisitions among firms in India offers important advantages for examining firm behavior in emerging markets. This sociological study contributes to a small but expanding literature on M&As in India. However, it is not a representative context. Firms in emerging markets have different corporate property rights, have different relationships with state agencies and face different capital constraints (Zhou, Li, Zhao and Cai 2003). These institutional arrangements can have different effects on a firm pursuing a particular growth strategy. With India, China, Brazil and Russia (i.e., BRIC nations) emerging as the world's greatest economies, it would be interesting to compare and contrast factors that affect strategies for growth in these countries from a sociological perspective.

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APPENDIX A

DATA COLLECTION

The data for the study was collected from the following sources: Prowess, SDC-Mergers and Acquisitions, Thomson One Banker, Mergent Online and India-Infoline.

The first step in the data collection process was to obtain a list of publicly listed Indian firms. I selected the Prowess database which is a product of the Center for Monitoring the Indian economy (CMIE). This database has been used by previous researchers in their studies of Indian firms. The database contains detailed financial information on Indian firms that are both listed and unlisted. The public firms are listed on the major stock exchanges in India that include the Bombay Stock Exchange and the National Stock Exchange. Financial information for each firm covers 1500 data items.

With the help of the Prowess database, I was able to obtain a list of 5930 listed Indian companies. These companies belonged to four different industrial sectors i.e., Manufacturing, Services, Banking and Finance. Their ownership categories also varied based on who held majority stock in them i.e., Indian, Foreign, State and Central Government and Joint sectors. The majority of the companies (i.e., almost 95%) in the Prowess database are Indian companies and the remaining (i.e., 5%) are foreign firms. The data for the independent variables was selected from the Prowess database. The Prowess database did not have merger and acquisition (M&A) transaction information, going as far back as 1991. It did have some recent information on M&A transactions.

In order to collect information on the dependent variable (i.e., Mergers and Acquisitions), I used two databases i.e., SDC-Mergers and Acquisitions and Thomson One Banker. SDC-Mergers and Acquisitions is transaction based. It provides a comprehensive coverage of corporate transactions that have taken place all over the world. Thomson One Banker contains financial data on public companies, merger and acquisition information and market data. I selected merger and acquisition transaction information on publicly listed Indian firms in these two databases based on certain criteria i.e., name of acquiring firm and target firm, deal value of the transaction, date of the transaction, industrial classification of the target and acquiring firm, country to which the target and acquiring firm belong and the status of the transaction (i.e., completed, pending, withdrawn, rumor). Since the data was transaction-based, I had to create a list of Indian target and acquirer firms.

The Prowess database and the SDC-Mergers and Acquisitions and Thomson One Banker databases' differed in the way they reported the names of the publicly listed Indian firms. Therefore, I created and assigned unique ID numbers to the list of firms obtained from the different databases. A manual comparison of the names of the companies in the two lists was performed and a common list of 1436 companies was obtained. Since many of these companies did not have complete financial information from 1991 to 2005, I decided to use the top 500 companies (i.e., ranked according to total assets) in 2005 as a sample for the study.

Once I had selected the sample, I had to create a list of firms with the independent and dependent variable for each year (i.e., from 1991 to 2005). The lists of firms for each year were sorted according to total assets. Data for the other independent variables (i.e., debt, earnings, subsidiaries and efficiency) was collected. I lagged each independent variable by two years since it takes time for firms to set up a merger and acquisition strategy. For example, for company A in the year 1991, the mean of total assets for the previous two years i.e., 1989 and 1990 was calculated and used in the analysis. Thus, I had created a separate list of companies with the independent variables for each year from 1991 to 2005. With the help of the lists for each year, I manually went through the merger and acquisition transaction information and coded whether the firms were acquirers, targets or did not experience the event in each year. Acquirers were coded as 1 and targets as 2. Those firms that did not experience any event were coded as 0. As I manually went through the dataset, I was able to see that many of the firms were not targets in several of the years. Thus, I decided to study only the acquiring firms. I selected mergers and acquisitions with the highest deal value in each year in order to code the data for the dependent variable. If the deal value information was not available, I selected the first "completed" transaction for that year. The 15 lists of companies (identified by their ID numbers) for each year with the independent and dependent variables' were merged together using STATA software. Thus, a company could have a minimum of one observation to a maximum of 15 observations in the panel dataset.

The data for the independent variable "year of incorporation" had to be verified in 4 different databases. The reason for doing so is because some firms that have already merged with/or acquired another firm in a particular year will have that year listed as their year of incorporation i.e., the year of incorporation reflects the most recent incarnation of the company. Data for the independent variable "previous mergers and acquisitions" in a firm's primary industry was also manually coded. This data was collected from the merger and acquisition transaction information. For example, if Company A belongs to the manufacturing sector, then for the year 1991, I counted the number of previous mergers and acquisitions in the manufacturing sector for the years' 1989 and 1990.

Some of the firms in the dataset had missing values on their independent variables. Therefore, for each independent variable in the dataset, I created a "missing value" variable. The "missing value" variable consisted of cases that had missing values on a particular variable versus those cases that were not missing a value on that variable. The "missing value" variable for each of the independent variables' was combined to form another variable called "Miss". I used t-tests in order to understand whether the pattern of missing values was random or systematic. The pattern was random for most of the independent variables but for total assets. This was observed in a manual examination of the dataset where it was found that firms with smaller asset size had more missing values. I deleted the missing values list-wise and the final dataset had 4970 firm-year observations.

APPENDIX B

Frequency table showing number of Acquisitions by Indian firms in each year

Year	Number of Acquisitions
1991-1992	0
1992-1993	2
1993-1994	3
1994-1995	5
1995-1996	17
1996-1997	3
1997-1998	10
1998-1999	16
1999-2000	18
2000-2001	42
2001-2002	33
2002-2003	31
2003-2004	36
2004-2005	39
2005-2006	44

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