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DEVELOPMENT AND INTERNATIONAL BUSINESS
An application to India

Presented by Manoj Raman
towards a degree of Doctor of Philosophy

City University Business School
Department of Strategy & International Business

February 1999

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Acknowledgements

My deepest expression of gratitude goes to my supervisor Prof. Chong Ju Choi - I am indebted to him for providing the intellectual ferment and academic support that has helped me construct solutions to difficult research problems. Given my limitations, without his helpful criticism and constant encouragement, over the last three years, this research effort would not have come to fruition. I would like to thank him for making the creation of this dissertation the most intense and rewarding experience of my academic career.

I would also like to thank Prof. Charles Baden Fuller for his constant efforts to raise the benchmark of excellence through stimulating seminars which provided a valuable basis for the development of this research. At a personal level he has always been a source of encouragement, providing support, advice and resources to present some of the ideas at conferences.

I would like to thank Prof. Costas Grammenos for his support through the MSc in Shipping, Trade and Finance and my doctoral programme.

I would also like to thank the University for granting me financial support over the last three years.

Finally, I would like to thank my family, especially my wife, for their constant support and encouragement.

Declaration

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Abstract

The issue of development in emerging markets has moved on from the polarized debates along ideological lines about the state vs. markets, to focusing mainly on economic indicators. Increasingly, as knowledge becomes the main focus of development, it is acknowledged that the state can play a positive role in promoting its growth. To try and analyse these developments, it is imperative that we appreciate the role of differing business systems that impose constraints on development, especially in influencing capital allocation in the system. The emergence of cyber-cities in impoverished developing countries like India need to be analysed to appreciate the factors that will influence the trends in development - the success of such cities can be attributed to the positive role played by the state and the clustering of software industries around centres of knowledge.

We develop frameworks to analyse to compare the existing forms of corporate governance, and a third system for emerging economies such as Asia or Europe. We also develop frameworks to analyse market exchange and alternative frameworks from modern and pre-modern societies, in order to understand the nature of exchange in intangible and inalienable assets such as knowledge. We apply these frameworks to Indian software industry to give us an insight into how India has managed to emerge as a significant player in the software industry. We conclude that the political embeddedness of the various institutions and organisations are playing a critical role in shaping its business systems which is at the crossroads between a pluralist shareholder and corporatist stakeholder system. Also, these factors are forcing the Indian software industry to focus on the lower end of the value chain.

INTRODUCTION

A substantial amount of social science research that has been carried out in the last few decades has been unprepared for the major turbulence, change, and the nature of competitiveness in today's global environment. The past decade has been characterised by social and ideological upheavals that have transformed the political and economic landscape, with most nation-states attempting to embrace a liberal democratic market structure. Although recent political and economic developments, especially in South East Asia and Latin America, have tempered the unrealistic expectations and optimism, it is useful to highlight the distinctive features of the extant global economy which are changing the sources of advantage of firms and countries and the economics of industries in new and often unpredictable ways. These include competitive deregulation between countries, less protectionism, formation of regional trade blocs, structural changes in industries because of technological changes, excess capacity and customer expectations, environmental concerns, and interorganizational collaborative arrangements (Prahalad & Hamel, 1994).

These changes have led to an urgent need to reassess the traditional frameworks of development and international business. Thus, the main purpose of this thesis is to problematize the enduring value of existing views on development and international business, and to further explore an alternative perspective on development and international business systems. In doing so, we do not claim to have covered the vast array of diverse literature on the nature and impact of development,

nor to have captured the infinitely complex details of economic and management issues.

Studies of change and success in economics have tended to focus on two areas. The first is the analyses of the evolution of dynamic markets, over time, which originated from Schumpeter and the Austrian economists. This area has traditionally merited more than a footnote in textbooks and is only now been revived as an important approach for economics, institutions and management (Kogut, 1991, 1993; North, 1990). The second is the study of the history of certain economies and certain industries, conducted with a view to identifying the key variables explaining why those entities develop and change (North, 1990; Langlois, 1992). This thesis is conceptually located in this genre of social science research and explores the “grey” areas that are common to research in international business and development economics. More specifically it focuses on two factors that have dominated the debate in the literature in both streams of research, i.e., the role of allocation of financial capital within a business system and the role of knowledge as a source of competitive advantage for countries, industries and firms.

Extant literature in international business, tends to discuss global competition with reference to the triad framework, thus, leaving out the “emerging markets” and the rest of the world as developing countries. Even the extensive literature on comparative institutions and culture seems to share the same world view both in their implicit theoretical assumptions and in the scope of their empirical investigation. However, the dramatic changes in global markets and the resultant complications in global competition have undermined the validity of this traditional framework; the

continuing success of these emerging market economies and their firms challenge the validity of the traditional framework of global competition.

We suggest that the business system of a country or a group of countries consisting of various institutional and cultural factors are a crucial determinant in analyzing the differential modes of organization and strategy as well as differential rates of performance in today's global competition. Unlike the mature markets in the referred to in the traditional triad, the emerging markets have yet to formulate and institutionalize their own business system or distinct form of capitalism since they cannot exactly replicate the mature business systems. Different countries and regions are experimenting with different systems that involves a choice between Anglo-Saxon and Communitarian systems mixed with the elements of emerging market characteristics.

Common to debates in economics and international business is the issue of capital allocation and economic success - this has been one that has been argued for at least most of the 20th century. Prominent economists such as John Hicks argued that the financial markets of the United Kingdom allowed rapid industrialization in England, through the mobilization of capital and overcoming of risk for the development of immense, major industrial projects (Hicks 1969). In contrast, Joseph Schumpeter argued that banks rather than financial markets were fundamental to economic success, because banks would identify and fund the key entrepreneurs to develop technological innovations (1934). The academic debate on the relationship between financial factors and economic growth has been discussed in detail recently by Levine (1997); King and Levine (1993); Shleifer and Vishny (1997). Empirical research has shown that although countries with larger banks and more active

financial markets tend to also have higher economic growth rates, it is not certain which particular financial allocation mechanism, or which mix of banks and financial markets helps to create the greater economic success (Levine 1997; Albert 1991; Stern 1989). We feel that there is the need to analyse the role of the system of allocation of financial capital in the recent economic crisis in Asia (using the framework of the “new” triad of competing business systems based on the constraints imposed by domestic institutions and organisations and their role in influencing financial capital allocation), and its implications for economic development in the “emerging” markets. To highlight the issues of the role played by domestic institutions and organisations in shaping the business system and the allocation of financial capital, it is useful to analyse how the political economy of India has shaped the business system in India and highlight the significant factors in its system of allocating financial capital that helped it avoid being caught up in the recent crisis.

An organisation’s and country’s ability to create and exchange knowledge within a network of social and technological relationships has become crucial to success in today’s world of globalisation, uncertainty and turbulence. Most of the vast past research on knowledge based competition has tended to rely primarily on transaction cost analysis, and to neglect the salient features of the nature of knowledge as an intangible resource and the difficulties of assessing its value. Recent exceptions include Grant (1996); Choi and Lee (1997); Spender (1996). We believe that the intangible nature of knowledge especially in today’s constantly turbulent world, shifts the focus away from knowledge products or services being exchanged in the market, towards how the market identifies certain firms and certifies their knowledge resources and value in the market. The intangibility of knowledge also raises the

fundamental question of the effectiveness of knowledge based market exchange, and we suggest possible alternatives that exist to such market based exchange. Also, due to the tacit characteristic of knowledge, effective transmission of tacit knowledge requires proximity, especially for continuous innovation, and this creates the potential agglomeration economies. In the thesis we explore the factors that will enhance or inhibit the creation of industrial clusters and then analyse the factors that led to the emergence of such clusters in the software sector in India.

Thus, as seen in the flow chart below, the dissertation is divided into two broad streams, i.e., business systems and capital allocation, and knowledge. Given the plethora of issues involved and the complexity of each, it is obvious that we will at best be able to present a macro-perspective of the broadly emerging trends.

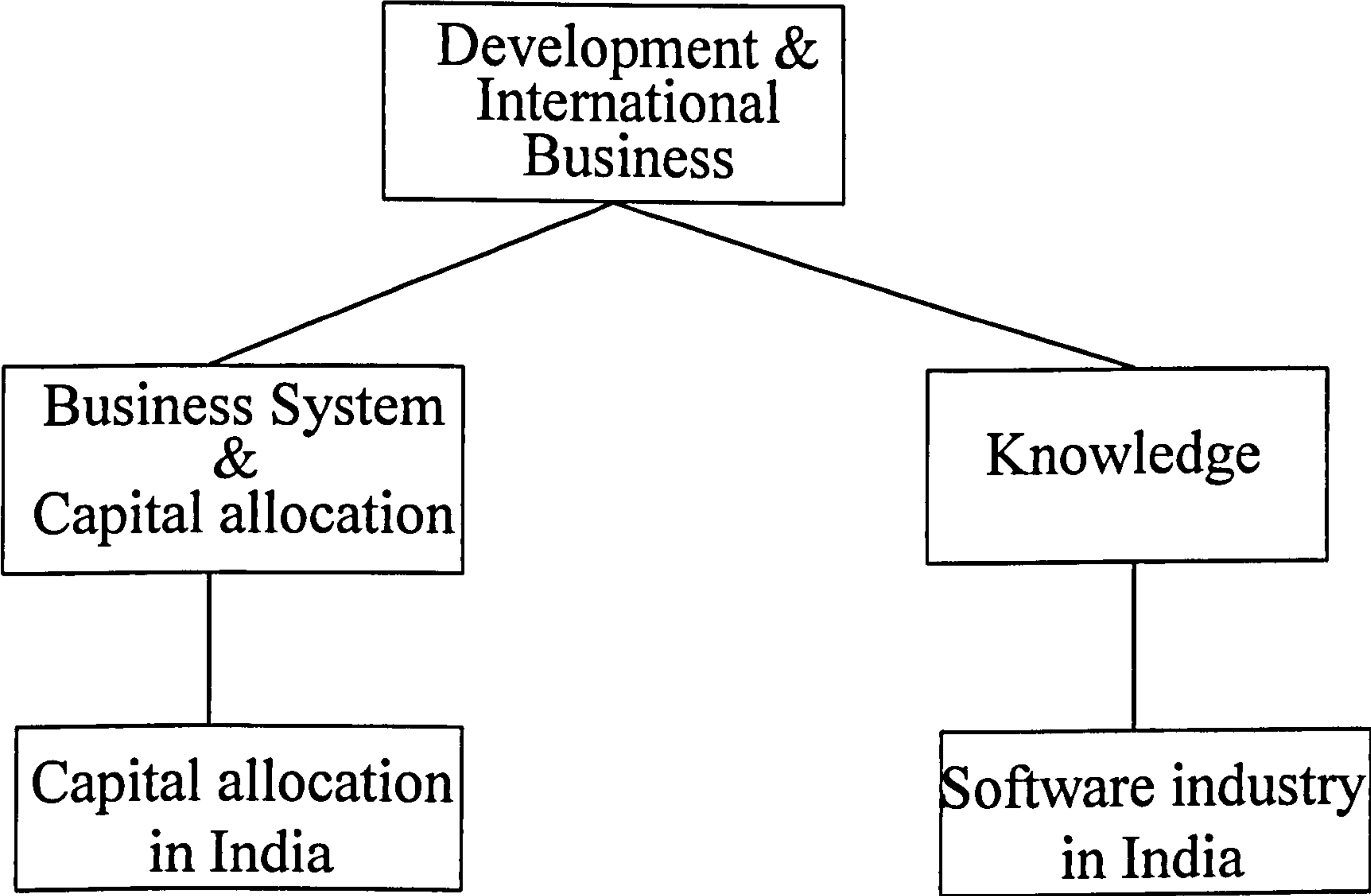


Fig 1.1: Framework for analysis of development & international business

METHODOLOGY:

In each stream we propose to first develop an appropriate conceptual framework that will help us analyse the role of various institutions and organisations, and the distinctive nature of exchange and growth in knowledge industries in emerging markets. The first framework revolves around the political embeddedness of “new” triad of competing business systems and analyses their influence on the allocation of financial capital and knowledge as a resource for economic development. The second framework revolves around the distinctive nature of knowledge, i.e. being intangible and inalienable, which makes the nature of exchange in knowledge industries different from manufacturing industries, thereby, very often, leading to clustering of knowledge industries (as it is easier to exchange tacit information which is critical for innovation). After developing each framework we will apply these to the Indian economy so as to give us a greater appreciation of the challenges that India faces in developing knowledge based industry in a complex socio-economic and political milieu. We then develop the notion of dynamic identity, which helps us find a link between the two frameworks mentioned earlier - this is in the context of overcoming measurement costs which are common to knowledge industries and stakeholder business systems. Thus the thesis is *mainly conceptual and exploratory* in nature, with the study of the Indian political economy, system of financial allocation, and software industry serving mainly to highlight some of the conceptual issues that have been raised. Given the *qualitative* nature of the thesis and the issues raised, the approach is *multi-disciplinary* covering economics, international business, political science, sociology, anthropology, and law. The approach is holistic, with the

attempt being primarily to highlight the limitations of the extant dominant approaches to examine the issues raised and tentatively propose alternate frameworks of analysis.

Qualitative research is defined as “an array of interpretative techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency of certain more or less naturally occurring phenomena in the social world” (Van Maanen, 1983). Because the qualitative method refers to the what question while the quantitative approach refers to the how much question, the qualitative research is likely to provide much insights into an understanding of complex phenomenon (Bogdan and Taylor, 1975). In addition, owing to the potential difficulties and the possible misrepresentation which may arise as a result of the quantification of data, the qualitative research is likely to be most appropriate in helping us understand. Furthermore, the qualitative method is envisaged to provide us with the greater depth and flexibility of information (Van Maanen, 1982).

There are various types of qualitative research methods available. They include action research, ethnography, grounded theory, and case study research (Myers, 1997). Action research examines the practical concerns of the subjects in any particular environment by emphasising on the collaborative aspects and the ethical framework. It leads to an enlargement of knowledge, rather than the simple application of knowledge. The action research leans toward the phenomenological approach because it assumes that any phenomenon is a constantly changing, rather than a static process (Easterby-Smith, et. al., 1991). As a result, a research process becomes involved with the changes. Another type of qualitative research method is the ethnographic research which is primarily used in the social and cultural anthropology disciplines (Myers, 1997). The phenomenon are explained in the context

resulting from the researcher's involvement in the subjects of the study (Lewis, 1985). As a result, the researcher typically spends much time in the field observing the subjects and the phenomenon. The other type of qualitative research method is the grounded theory which refers to a "theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observation or data" (Martin and Turner, 1986). It emphasises specifically on the theory development and the systematic way of collecting and analysing the data.

Lastly, the case study research is one of the most common qualitative research methods. We now discuss some of the aspects relevant to our adoption of the qualitative case study approach. Although, the qualitative case study approach has been increasingly used in academic research, it is recognised that there are a number of arguments against both the qualitative, as well as the case study approach. Firstly, it is said that the qualitative researchers have a tendency to collect selective data which lead to a non or misrepresentation of data. However, Bogdan & Taylor (1975) argue that by forcing data into the set structure, the quantitative method is also subject to a potential bias or misrepresentation of data. This view is also supported by Sutton (1997) who suggests that even some weak qualitative data may lead to good insights of the subjects. Secondly, many of the concerns regarding the use of case study approach appear to lie with the data collected leading to the potential problems regarding the validity and generalisability of the findings and conclusion (Bryman, 1989). However, Yin (1994) argues that "case studies, like experiments, are generalisable to theoretical propositions and not to populations or universes". In other words, case studies approach the phenomenon by analytically generalising the

theories, rather than statistically generalising them. This thesis is the beginning of an attempt at developing a grounded theory about issues in development and international business using the case study of India to highlight some of the issues raised.

Why India?

India is an interesting choice to highlight some of the issues raised. Over the past fifty years, India has been a puzzle for students of comparative democratic politics. Its success in maintaining democratic rule since independence in 1947, given the religious, cultural and linguistic differences of the large population, has confounded most political scientists (Weiner 1989, Dahl, 1989). Whilst the prolonged stability of the political system has been remarkable, it is the economic changes that is now attracting attention, more specifically the growth of the Indian software sector. After having moved at a snail's pace, referred to as the Hindu growth rate of 3-5%, India started emerging from the economic wilderness since the early nineties. More importantly, it started making a significant impact on the world software industry - from 1990 to 1997, there has been no other country except India wherein the software exports have consistently grown at 50% annual growth rate. The significance of this is primarily in the context of the fact that India has consistently been at the bottom of league when most social indicators like education, health, poverty are measured. Thus India is representative of a big "emerging" market which has because of the idiosyncrasies of the political economy (developed through the "second" best compromises in the constant tussle between various institutions and organisations) has a mixed system of financial capital allocation with a stakeholder bank driven business

system coexisting with a vibrant stock market which is one of the oldest in Asia. At the same time it is unique amongst impoverished developing countries that can boast of a globally competitive software industry.

The case studies will examine how the role of government regulation, domestic institutions and organisations and has shaped the Indian political economy, especially the allocation of financial capital and the factors that are responsible for the emergence of India as a significant player in the software industry.

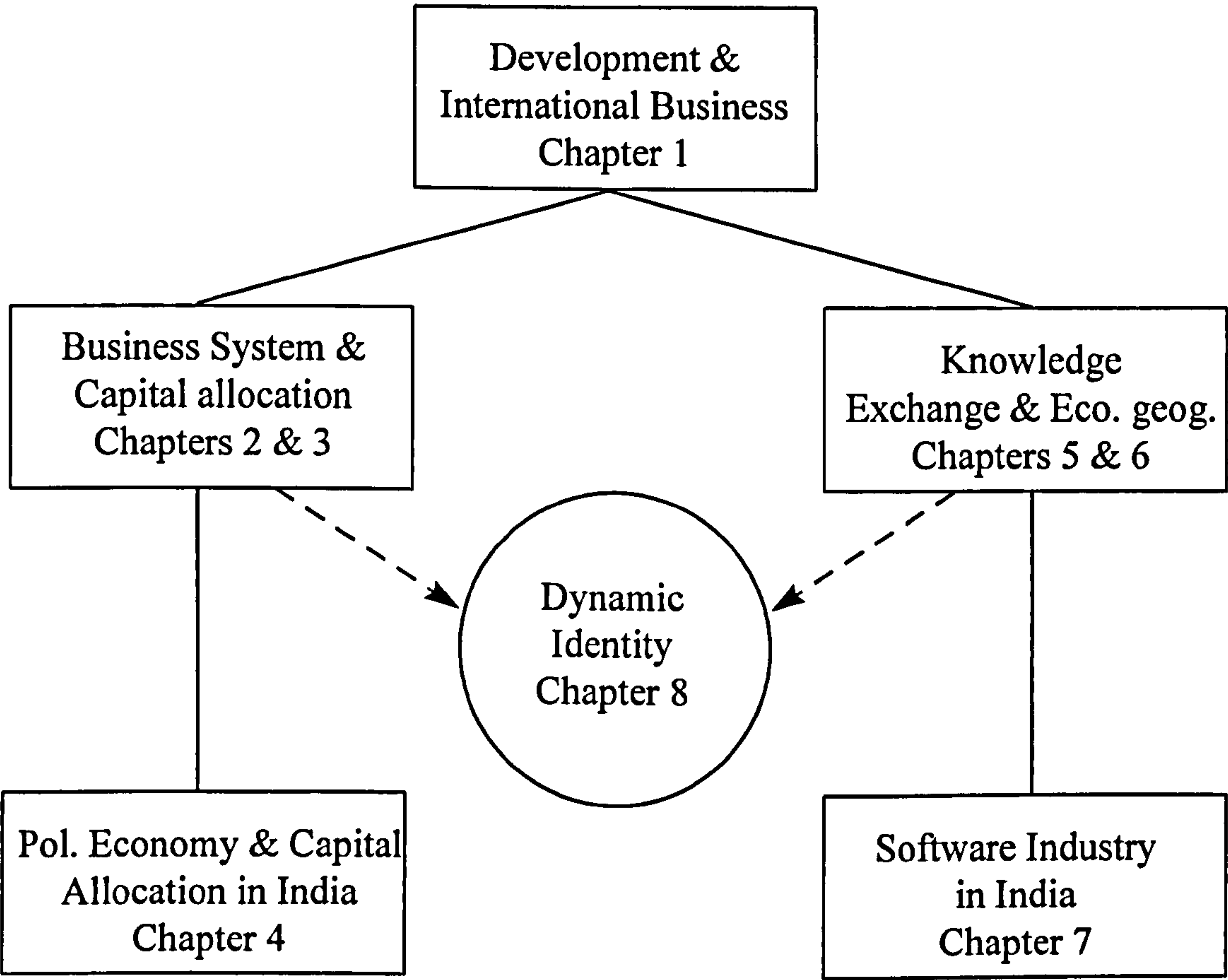


Fig. 1.2: Dissertation Flow Chart

Figure 1.2 shows the layout of the dissertation and the links to various chapters. As shown in the figure above, in chapter 2 we highlight the role of political embeddedness in comparative business systems research and its potential implications for governance systems in emerging economies, taking into account the non-economic

forces that influence firm capabilities and behaviour. In chapter 3 we use these concepts and frameworks to analyse the recent economic crisis in emerging markets, especially those in Asia. The focus in this chapter is mainly on distinctive nature of financial capital allocation and knowledge dissemination in these markets, which were, till recently, useful in promoting economic growth, but in our analysis proved to be the Achilles heel for these countries. In chapter 4 we use the same concepts and framework to analyse the factors that helped India avoid the recent economic crisis. In doing this we examine the role of institutions and organisations in shaping the Indian political economy and more specifically the system of allocation of financial capital.

In chapter 5, given the intangible and inalienable nature of knowledge, we highlight the need to develop different conceptual frameworks by which knowledge assets, unlike tangible goods, are exchanged. We suggest alternative frameworks based on reciprocity and redistribution, exchange systems more traditionally associated with pre-modern societies. In chapter 6, we try to integrate the literature in new economics geography, which includes international trade, growth theory, and development economics, into the literature in international business. We apply some of the concepts in this literature to the economic developments in India, focusing primarily on labour mobility, which has political, social and psychological foundations, could work in opposite directions to the economic effects of geography. In chapter 7, we explore this theme in greater detail, by analysing the factors that has led to the phenomenal growth on the Indian software industry and more specifically of cyber-cities like Bangalore. The analysis in this chapter is based primarily on semi-structured interviews of executives from India's leading software companies to get

insight into the evolution and strategic challenges facing the industry in India and the future for growth in the cyber-city of Bangalore

In chapter 8, we try to “marry” the two streams of research, by analysing the role of measurement costs in the stakeholder system (arising mainly due to diversity of stakeholder interests) and in knowledge-based industries (arising mainly due to the intangibility of product and service). We develop the notion of “dynamic identity” using indices for certification of performance which we propose can be used in stakeholder systems and knowledge based industries.

The thesis is divided into three sections; section I revolving mainly around the central role of the state and other non-market institutions and organisations in economic development and international business (chapters 2,3,4); section II revolving around the role of knowledge in economic development and international business (chapters 5,6,7). Section III as mentioned earlier tries to bridge the gap between the two broad streams of research in development and international business (Chapter 8). In the following sections we briefly discuss the centrality of the state in any discussion on development and international business, and then discuss the issues raised in each chapter.

SECTION I : ROLE OF INSTITUTIONS & ORGANISATIONS IN ECONOMIC DEVELOPMENT & INTERNATIONAL BUSINESS

Development and the role of the state:

The debate about the role of the state lies at the heart of development economics. Till the beginning of this decade this debate about the role of markets and

governments in guiding the economy was conducted mainly along ideological lines. On one end of the ideological spectrum, there were the advocates of 'minimalist' state (Nozick, 1974) and on the other end were those who advocated the central role of the state in development. Much of this debate has been and continues to be dominated by the idea of 'market failure'. The early development theorists (Rosenstein-Rodan, 1943; Nurske, 1953; Scitovsky, 1954; Hirschman, 1958) pointed to market failure as a reason for comprehensive planning. The actual experiences of the developing countries like India in the context of problems associated with government intervention, and theoretical arguments against the role of the state led to the recognition of 'government failure' as an impediment to development (von Hayek, 1967, 1986; Bauer, 1971, 1984, Little *et al.*, 1970). Thus, unlike the early 40s and 50s, disenchantment about the planning increased through the next three decades, which formed a central part of what Little (1982) called the 'neo-classical resurgence'. The criticism about the deficiencies of planning focused mainly on price distortions, associated with protectionist and import substitution policies, which have usually accompanied planning (Balassa, 1971; Bruno, 1972; Kreuger, 1972; Dasgupta et al, 1972, Little and Mirrlees, 1974).

This debate about the role of markets and governments was challenged from a different direction by the phenomenal growth in the East and South East Asian markets. For example South Korea which went on to become a member of the OECD in quarter of a century, has grown quickly with an outward orientation but with substantial government intervention in the investment process and import substitution (Wade, 1985; Jacobs, 1985; Kim and Yun, 1988). Over the last two decades, China has shown rapid growth through a number of different planning regimes, with no

claims to being a free trading country with minimalist government (Riskin, 1987; Perkins, 1988).

Until very recently, straddling the development debate has been the World Bank, arguably one of the most powerful producers of international development knowledge. In the beginning, the Bank thinking and policies were clearly guided by Keynesian consensus and cold war liberalism - liberal developmentalism or classical modernisation theory (Berger & Beeson, 1998). The main focus was on alleviation of poverty to stem the tide of communism with a firm belief in emulating the approach to economic modernization believed to have been adopted by North America and Western Europe; the state was to play a significant role in poverty alleviation. In the early eighties, the emergence of neoliberal governments in a number of Western industrialised countries and changes in the overall context of the international political economy, led to neoliberalism emerging as the dominant narrative on development. It led to poverty alleviation being demoted as a priority for the Bank, with structural adjustment policies taking its place. The Bank's prescriptions for development called for a greatly reduced role for the state in the economy and with much greater reliance on the market as a means of accelerating economic activity (World Bank, 1981). The fall of state socialism by the end of the 1980s, had in the opinion of the Bank, led to a new international consensus on development thinking which has replaced the ideological conflict - a consensus based on a balance between the private sector and government. But the Bank still had a problem in coming to terms with what was increasingly being viewed as the miraculous industrialisation of East Asia. The Bank had tried to depict the East Asian experience as essentially a normal part of capitalist development in accordance with neoclassical economics. It was only in 1993, in a

Japanese government funded study, that for the first time in a major Bank publication, it conceded that government intervention had played some role in the economic development of most of East Asia (World Bank, 1993; Wade, 1996). But even in this and later reports, the role of the state or government institutions was seen as being relevant to particular times, and not to the overall understanding of successful capitalist development. The reinvention of liberalism, in which the Bank gives the state a prominent role was complete with the publication of *The State in a Changing World* (World Bank, 1997). The entire report is premised on the idea that the state is not simply a important determinant of national economic welfare, but that ‘its capability - defined as the ability to undertake and promote collective actions effectively - must be increased ‘ and the state is not merely capable of laying the foundations of industrial development but actually accelerating it.

Thus, in the debate on development, we have seen the entrenchment of what Stephen Gill describes as ‘market civilisation’ - coupled to this is the grudging recognition of the potential efficacy of state intervention. In conceptual terms it throws up a range of options in terms of the role of the government, banks, and capital market, and other institutions in development, producing the differing business systems that compete in the global economy.

International business & the role of the state:

The globalised marketplace, which is the terrain in which international business is conducted, is constantly influenced by a host of dynamic factors. “The fundamental distinction between domestic and international business is the existence of interventions by Governments in inter-country business activity, which lead to

business reactions” (Grosse & Behram, 1992: 94). Thus the study of international business has to, primarily, focus on firms that undertake business activities that cross its’ national borders and on the policies of host governments that regulate them. Avoiding the study of governmental policies and politics eliminates the *international* component of international business (Boddewyn, 1988). Of factors which are transforming the global marketplace only some of them are *directly* influenced by the policy prescriptions of the respective host government and thereby have a direct impact on international business. These include deregulation of economic and business activity, less protectionism, and the emergence of trading blocs.

The study of international business is therefore essentially an attempt to understand the changing dynamics of the interaction between governments and firms that are interested in exploiting the comparative advantages of the respective nation-state. Notwithstanding the regular diatribes of the votaries of free markets against the distortions of the market by governments, the fact remains that governments are not going to surrender the “sovereign” right to influence the behaviour of markets so as to meet its’ perceived political and socio-economic objectives. In practice, the strategies of transnational corporations and Government policies, each arise from the decision-makers views of their bargaining strengths and those of other relevant actors, as well as their assessments of opportunity costs and willingness to forego any dealings with the other party. While the specific bargaining strengths of the government and transnational corporations in the context of international business varies, contingent on the idiosyncratic characteristics of the respective country and firm, there are some factors that are common in most cases.

Chapter 2: Global Triad: National Business Systems Approach to Emerging

Markets:

Recent comparative international business research has shown the importance of distinguishing between the contractual and individualist approach of Anglo-Saxon societies, such as the United States and United Kingdom and the collectivist and relationship based approach of communitarian societies such as Japan and Germany. We compare the two existing successful systems of corporate governance, and analyse which aspects of both systems may provide helpful to the formation of governance systems in a “third system”, the system for emerging economies such as Asia or Eastern Europe.

This chapter has two major objectives. The first is to use various concepts and develop frameworks to analyse and compare the different approaches to governance and national business systems, that exist successfully today in the broader context of political embeddedness (Zubkin and DiMaggio 1990) and the important interaction between institutions and organisations (North 1990). We are thus further extending the earlier research of Roe (1994, 1997); Albert (1991); Whitley (1990); Brewer (1993), who helped to show the importance of the political and the firm’s environmental dimension in comparative business system research. It is a relatively simple, and broad generalisation to categorise various countries into such two groupings; however, we believe this helps emerging economies to clarify which broad aspects of these two systems can be incorporated into their own economies.

The second is to analyse what implications and lessons there are from the highly successful systems of the United States and United Kingdom and the equally successful but different business systems of Germany and Japan. Many of the

emerging economies of the world, especially in Asia and Eastern Europe are developing and refining the nature of governance in their business systems (Olson 1991, 1992; Lecraw 1989; Elster 1989; Madhok 1995; Choi 1994; Choi, et al. 1996; Buckley 1990), requiring further research of their national business systems from international business researchers; the Asian economic and business crisis that began in 1997 has shown the further need to study the workings of national business systems. Our approach in this chapter is to analyse broad social, economic, political, international business trends which seem to categorise certain groupings of countries, and which can in turn provide guidelines for emerging economies in the global environment.

This chapter provides a new framework for understanding global competition. It is based on a, “new triad” of national business systems: Anglo-Saxon, Communitarian and Emerging Market, which complements the traditional triad of United States, Europe and Japan.

Chapter 3: Financial Capital Allocation and Development

The issue of capital allocation and economic success has been one that has been argued for at least most of the 20th century. The allocation of financial capital, within the financial systems literature is an immense area covering international economics, economic development and corporate finance (Giovannini and Melo 1993; Caprio, et al. 1994; Greenwood and Jovanovic 1990; Fry 1995). Fundamentally, financial systems serve major functions including: allocating resources; monitoring management performance; mobilizing savings; providing information about prices; facilitating exchange in the economy (Merton and Bodie 1995; Levine 1997). The

effectiveness of financial systems in leading to economic success has been analyzed in two major types of models. In the first type of economics and finance model, the financial system affects the rate of capital formation through savings rates changes and reallocations (Romer 1986; Lucas 1988; Rebelo 1991). In the second type of economics and finance model, the financial system helps to encourage new technology and production processes (Romer 1990; Grossman and Helpman 1991; Aghion and Howitt 1992).

The economics and financial literature behind these two major models of economic success have not provided conclusive theoretical or empirical conclusions in three major areas. First, there is very little research on the role played by institutional factors such as legal traditions or political systems in influencing effective financial capital allocation; recent exceptions include Choi, et. al. (1996); Engerman and Sokoloff (1996). Second, although both effective banking and financial markets are seen to be crucial to economic success (Levine 1997), there are few conclusions on which mix of these financial instruments such as banking, insurance, equity markets, bond markets are optimal for a particular economy or region. Third, there is very little evidence on the linkage between financial capital allocation systems, and the level of economic maturity (Demirguc-Kunt and Maksimovic 1996). For example, it is not certain whether particular capital allocation mechanisms such as banking, equity or bond markets, derivatives which may enhance economic success in mature economies such as the United States or United Kingdom, are appropriate for more emerging economies such as in regions of Asia, Latin America or Eastern Europe (Choi, et, al. 1996).

The purpose of this chapter is to show that a framework for analyzing the crisis needs to take into account the decades of success up till the crisis: we believe that this can be done by incorporate “knowledge” and “capital” allocation in international business research. The purpose of this chapter is twofold. Firstly to provide an interdisciplinary analysis to the role of knowledge and financial capital allocation in international business and related disciplines such as international economics and development. Secondly, to analyse why the knowledge and financial capital allocation systems which were fundamental to the past economic success in Asia, have helped to create the present economic crisis.

Chapter 4: Indian Political Economy and Financial Capital Allocation

From a predominantly agrarian economy, with about 55% of GDP in 1950-51 coming from agriculture, India has done fairly well, achieving a compound annual growth (CAGR) in GDP of 4% in the past 40 years. This was largely due to sustained industrial and service sector growth, and in the process reduced dependence on agriculture. Therefore, in 1991-92, only 31% of GDP originated from the agriculture sector, with industry contributing 29% (against 16.1% in 1950-51) and services 40% (against 28.4% in 1950-51). During this period, agriculture grew at a CAGR of only 2.5%, while in contrast, industry grew by 5.5% and services by 4.8%. Some of this growth has been achieved because of the robust growth in the domestic savings rate, which is currently over 24% of the GDP - one of the highest in the world.

But the main pillars of on which the revival of Indian economic growth was founded since the budget of 1991, i.e., industrial production and exports have revealed their vulnerability. In addition, both industrial and agricultural growth have slowed down considerably, and the fiscal deficit has risen. In this chapter we shall try to lay

out a broad overview of the Indian political economy, and highlight the various institutional and organisational constraints that shape the economy.

We shall then analyse the nature of financial capital allocation in India in the context of the shareholder/stakeholder framework that we developed in the earlier chapter. We shall examine whether the overall business and financial capital allocation system have helped India avoid the recent crisis in Asia.

SECTION II: ROLE OF KNOWLEDGE IN DEVELOPMENT

Knowledge, Economic Development & International Business:

We believe the area of economics literature which has relevance for international business has only occurred in the mid-1990's, with the increased interest in economic development, partly driven by the issues economies in transition in Central and Eastern Europe. The study of emerging economies in Eastern Europe, along with the numerous earlier studies of Asia (Amsden 1989; Wade 1990) helped to raise the following types of issues, that have especial relevance to future international business research. Firstly, that knowledge as a resource has to be analysed from the traditional economic growth theorists that have included it as part of human capital and seen education policy as the answer to its development (Romer 1986). Secondly, fundamental questions of markets, institutions and organizations have to be adjusted in the context of emerging economy environments (Lall 1992, 1994; Choi 1994). Thirdly, knowledge about generic technology, which tends to be standardised need to be separated from knowledge about the quality or attributes of goods and services. All these factors have fundamentally raised knowledge in a different context in economics research in the late 1990's, combining the analysis of not only

development economics, economic growth with the earlier literature on economics of information.

In this section, we will briefly provide a summary of the broad economics literature and how the past research can shed light on knowledge for international business research. The definition of knowledge in management or international business research has tended to rely on Polyani's (1944, 1966, 1971) distinctions between explicit or codifiable versus implicit or tacit characteristics (Nelson and Winter 1982; Kogut and Zander 1993, 1995). This led to the view that what could be traditionally seen as effective market mechanisms working under perfect information may be relatively ineffective in terms of knowledge transfer and exchange. Thus, alternative transfer mechanisms, such as the multinational enterprise and other interorganizational transfers such as strategic alliances have been given as alternatives to the market (Choi and Lee 1997; Beamish and Inkpen 1997; Kogut and Zander 1993). There is an implicit assumption made in this line of reasoning towards knowledge in international business. The assumption is that although markets are effective towards non-knowledge assets such as capital, equipment, markets are ineffective towards the exchange and transfer of intangible assets such as knowledge.

Past economics research on intangible resources have been in the context of the new economic growth theory (Romer 1986; Krugman 1991). In this strand of literature, knowledge has been treated as an addition to the traditional economic resources of capital, land and labour; knowledge has tended to be seen in the context of human capital, and education policies (Aghion and Bolton 1997; Akerlof and Romer 1993; Bardhan and Rudra 1986). Thus, this past economics literature based firmly in traditional neoclassical frameworks and assumptions, did not fully address

the nature of knowledge and its implicit and intangible nature and again used the effectiveness of market mechanisms for the creation, development of such human capital as a resource (Levine 1997; Knack and Keefer 1997; La Porta et al. 1997; Stiglitz 1996). This strand of economics literature although addressing human capital and knowledge like resources, has less relevance to international business research.

Although the economics of information has an extremely broad and deep literature in economics starting from Akerlof (1970), Schelling (1969) and Spence (1973), the focus of this research has been on the nature of markets under imperfect and asymmetric information. Issues such as moral hazard, adverse selection, along with the explosive growth in game theoretic models throughout the 1970's and 1980's in economics research has analysed the nature of markets under imperfect and asymmetric information (Milgrom and Roberts 1992). Like the more recent literature on economic growth mentioned earlier, the economics of information again has tangential linkages to knowledge research in international business but did not overlap sufficiently to provide cross-fertilisation potential.

Chapter 5: Knowledge Based Exchange: Inalienability & Reciprocity

The growing management and social science literature on knowledge invariably tends to mention Polyani (1957, 1966, 1971) and the distinction between explicit information and implicit knowledge. Past research however has not analysed in sufficient detail the nature of knowledge based, “exchange.” In turn, although knowledge is seen not to be readily exchanged through the markets of modern society, the existing literature does not address sufficiently alternative frameworks. The

purpose of this chapter is to analyse market exchange and alternative frameworks from modern and premodern societies, in order to understand the nature of exchange in intangible and inalienable assets such as knowledge.

An organisation's ability to create and exchange knowledge within a network of social and technological relationships has become crucial to success in today's world of globalisation, uncertainty and turbulence. Most of the vast past research on knowledge based competition has tended to rely primarily on transaction cost analysis, and to neglect the salient features of the nature of knowledge as an intangible resource and the difficulties of assessing its value. Recent exceptions include Grant (1996); Choi and Lee (1997); Spender (1996). We believe that the intangible nature of knowledge especially in today's constantly turbulent world, shifts the focus away from knowledge products or services being exchanged in the market, towards how the market identifies certain firms and certifies their knowledge resources and value in the market. The intangibility of knowledge also raises the fundamental question of the effectiveness of knowledge based market exchange, and what possible alternatives exist to such market based exchange.

Our theory in this chapter is rooted in the concept of, "exchange" (Simmel, 1978; Sahlins, 1972; Bourdieu, 1977; Levi-Strauss, 1969; Mauss, 1955; Durkheim, 1951). The objective of this chapter are twofold. Firstly, the intangibility of knowledge in exchange, raises North's (1990) important point on measurement and enforcement costs, which Williamson (1985) has taken as exogenously given (Hirsch and Lounsbury, 1996). We analyse the importance of intangibility and, "inalienability" in understanding the nature of knowledge as an asset. We believe that this characteristic of knowledge requires us to develop different conceptual

frameworks by which knowledge assets are exchanged. Knowledge based assets tend to be inalienable, whereas commodity type assets, which can be freely exchanged in the market are alienable.

Secondly, although existing research views the accumulation of knowledge as a positive attribute, the process of exchange whereby knowledge is acquired or lost is not sufficiently analysed; plus, if knowledge is tacit, informal, how can it have a transparent market valuation? The premise in this chapter is that because the intangibility and inalienability of knowledge requires a more informal system of exchange and co-ordination, we can learn from the social anthropological literature (Sahlins, 1972; Simmel, 1978) which has studied the nature of exchange in, primitive, premodern, social systems. These systems developed effective exchange mechanisms without formal systems of law or contracts (Mauss, 1955; Bourdieu, 1990; Sahlins, 1972; Casson, 1996), however they also studied in depth the difference between exchange of commodities, versus exchange of inalienable assets (Gregory, 1992). We believe that the exchange of tacit, informal assets such as knowledge (Polyani, 1957, 1966) requires analogous frameworks of analysis. The growing management and social science literature on knowledge invariantly tends to mention Polyani (1957, 1966, 1971) and the distinction between explicit information and implicit knowledge. Past research however has not analysed in sufficient detail the nature of knowledge based, “exchange.” In turn, although knowledge is seen not to be readily exchanged through the markets of modern society, the existing literature does not address sufficiently alternative frameworks. Thus in the chapter we analyse market exchange and alternative frameworks from modern and premodern societies, in order to

understand the nature of exchange in intangible and inalienable assets such as, knowledge.

Chapter 6: Economic Geography and International Business

The location of business and economic activity could become a fundamental topic of international business research. Several strands of literature have brought together this revival of interest in what has been called, “economic geography” within the economic literature, but we believe also have implications for international business research. In terms of the influence of international economics or international business research, it has included various aspects of trade theory, foreign direct investment (Dunning 1996; Buckley and Casson 1998). But the issue of location brings together various economics as well as non-economics literature including: geography, complexity theory, history and path dependence. The purpose of this chapter is twofold. Firstly, to analyse the developments in these various disciplines and their relevance for international business research. Secondly, to apply these frameworks to analyse the economic developments in India.

The location of corporations has become a crucial factor in economics and business success for cities, countries and regions. Krugman (1991a, 1991b, 1998a, 1998b) has been the researcher most responsible within international economics for advocating a branch of research known as the, “new economic geography”. This relatively interdisciplinary area of research incorporating complexity theory, international economics and economic growth theories, and geography have begun to show how historical accidents and certain underlying factors can lead to dramatic creations or disintegration of economic activity. This research has not only relied on

the latest developments in economic theory, but also the earlier European works in geography and regional science of Weber (1909); Christaller (1933); Losch (1940). Although there has been a certain interest within international business on the existence of clustering of industries (Porter 1990), the existence of such networks and clusters have not been fully integrated into the growing research in the new economic geography, which have begun to provide the underlying reasons for the process that such networks and clusters can help to create cities, countries and regions.

As the pace of globalization increases and most activities become increasingly mobile, firms can make split their production choices among locations, as well as being able to supply more distant markets and customers. Competition between the various states for attracting investments within India has further added to the urgency of further research on such issues of the new economic geography (Sapir 1996; Krugman and Venables 1995; Krugman 1998). The fact that a particular firm's location decision may in turn be determined by the location decisions of other firms, and the aggregated benefits of the location make it potentially a crucial area of international business research. This is especially the case, because if indeed such geographical factors are driving foreign direct investment and firm decisions towards location and strategy, this has substantial implications for public policy and the role of the state towards such firm decisions (Lenway and Murtha 1991).

The purpose of this chapter is twofold. Firstly, we hope to integrate the rapidly expanding literature in the new economics geography, which includes developments in international trade (Krugman 1991a); growth theory (Romer 1986); economic development (Stiglitz 1994) with the research agenda of international business. These developments in several areas of economics have moved away from

traditional neoclassical economics of perfect information and perfect market mechanisms, towards imperfect information, imperfect competition and complex interactions among the state, markets, and society. Thus, the substantial results of this economics research needs to be more closely intertwined with international business frameworks.

Secondly, we focuses on how the results and frameworks of this new economic geography can be applied to the economic developments in India. We analyse how the results of economic geography need to take into account the issues of “labour mobility” in order to fully comprehend the relevance for international business research. The lack of labour mobility, which has political, social and psychological foundations could work in opposite directions as the economic effects of geography, agglomeration and increasing returns.

Chapter 7: Indian software industry

The policies of liberalisation adopted by the Indian government over the past decade and the ongoing globalization of the information technology industry are having a great impact on the business opportunities available in the IT sector in India. A enormous pool of skilled and relatively cheap software professionals located in a stable parliamentary democracy with an established legal system, vibrant capital market and mature financial system, increasingly, makes India the preferred location for software development. There are over 700 firms in the IT sector in India, employing more than 1,40,000 people. Of these firms, a number of companies have matured and they have started implementing major software projects which involve more that 250 man-years. Amongst the software professionals, there is in line with the

hardware used, a wealth of expertise in India on contemporary, open software environments, as well as older, proprietary software. Increasingly, a host of multinationals are setting up their own training establishments in India. For example, the Indian Institute of Information Technology near Hyderabad, houses training establishments set up by IBM, Microsoft, and Oracle.

As highlighted in the earlier chapter, knowledge can be broadly classified into technological and non-technological streams. The software industry exemplifies technological knowledge - we shall analyse the Indian industry as a case study of the successful implementation of technological knowledge. We shall also examine the phenomenal success of Bangalore in emerging as a Cybercity - this would serve as a case study of clustering of industries discussed in the earlier chapter.

SECTION III: STAKEHOLDER SYSTEMS & KNOWLEDGE INDUSTRIES

Role of dynamic identity in stakeholder systems & knowledge industries:

Although in the literature it is generally taken for granted that stakeholders are capable of measuring a firm's performance and accordingly adjust their attitudes, in reality it is not at all clear how stakeholders discern and value tangible, but more importantly, intangible and invisible assets. In other words, much of the existing research has eschewed from analyzing the issue of performance measurement, confident that this is transparent to stakeholders. Thus, what is fundamental to our analysis is the role of measurement costs (North, 1990) inadvertently arising from measurement problems which stem from the diversity of stakeholder interests.

Apart from stakeholder systems, similar measurement difficulties arise in knowledge-based industries due to the inherent intangibility of product and service

quality in these industries (Spender, 1997; Hosmer, 1995), although the major focus in this chapter is on such issues in stakeholder systems. Grant & Spender (1997) provide a comprehensive review of recent developments in knowledge based industries. Knowledge-based industries seem to be increasingly entangled as firms continuously forge links with actors from a range of diverse industries. This leads to dilution of traditional industry boundaries and acceleration of the rate of change and innovation, resulting in an absolutely volatile and complex environment.

We analyze the importance of institutional certification and indirect measurement indicators, which we define as “indices”, to develop a dynamic framework capable of evaluating performance in stakeholder systems. Our framework, based on the notion of “dynamic identity”, integrates these external measurement indices with stakeholder theory, and suggests some rules for analyzing success in the complex stakeholder environment.

Thus our research effort is essentially directed towards appreciating the role of business systems, capital allocation and knowledge in the development of emerging markets. To do this we propose to refine existing frameworks and develop new frameworks for analysing the various issues raised.

SECTION I:

***COMPETING BUSINESS SYSTEMS, DEVELOPMENT &
INTERNATIONAL BUSINESS***

GLOBAL TRIAD: NATIONAL BUSINESS SYSTEMS APPROACH TO EMERGING MARKETS

Introduction:

In the aftermath of the end of the Cold War, the ideological rhetoric that dominated the debate amongst policy makers, academics, and the media, has been replaced by speculation about the opportunities and threats created by the radical changes. Predictably the debate is becoming vitriolic and politicised. On the one hand there are those who highlight the opportunities that the economic growth, in some cases spectacular, in these “emerging markets” offer to companies from developed countries, especially given the disappointing performance of the advanced nations over the past twenty years. On the other hand, influential writers from developed countries have repeatedly emphasised the threat posed by both the success and failure of the reforms - if the reforms are successful then in the context of a zero-sum game, it has to be at the expense of the developed countries of the western world; if the reforms fail, the economic and social consequences of such an eventuality is highlighted. Despite the self-righteousness of both sides, arguably, most of what is being written is based on half-truths, speculation, or a premeditated agenda. In such an environment, it is not surprising that companies that seek to exploit the opportunities, are either upbeat about their prospects, or perceive their investments in terms of Russian roulette. In our opinion, for companies to make an informed judgement about

investing in “emerging markets” it is imperative that they appreciate the common and distinctive features of these markets.

In spite of the dominant rhetoric of interlinked economy and global market homogenisation, the compelling need to explain the differential rates of organisational performance on the basis of different modes of co-ordination and transaction governance over the past two decades has prompted many strands of international and comparative research on national business systems (Olson 1991, 1992; Boisot and Child 1988; Choi, et al. 1996; Choi 1994; North 1990). According to Nelson (1992), there are three clusters of analysis concerning the determinants of “national competitiveness”. Firstly, viewing firms as the main competitive unit; secondly, the macroeconomic performance of national economies; thirdly, microeconomic policies at the level of industries. Research in comparative governance and business systems needs of course needs to take into account all three levels of analysis and also include the importance of the interactions between institutions and organisations.

Dunning (1996), in his reexamination of the eclectic paradigm, recognizes that the socio-institutional structure of market-based capitalism is undergoing changes characterized principally by innovation-led growth, a “voice” (Hirschman 1970) reaction to market failure, and cooperation as competitiveness enhancing measure. These catalysts for the structural economic changes and the blurring of national boundaries as well as their various consequences on firm activities and performance have led to an urgent need to reassess the traditional frameworks of international business and strategy for global competition. A key issue is the role of political, social, institutional factors driving today’s successful business system, and how such systems can be emulated by other countries. Roe (1994, 1997); Boddewyn and

Brewer (1994); Kogut (1993); Albert (1991); Toyne (1988), have analyzed in depth the importance of the socio-economic environments of firms' home environment, or home market constraints on their competitiveness, which other researchers have generally treated as exogenous to the autonomous market system. In this chapter, we develop this approach by showing the importance of the governance systems within countries, especially the political embeddedness (Zubkin and DiMaggio 1990), or the nonmarket effects on national competitiveness. We extend the various works of Boddewyn and Brewer (1994); Hillman and Keim (1995), which have shown the importance of the political dimension and its interactions in international business research, to include various non-economic aspects of a national business system. We propose that groupings of countries can share such "non-economic", social, political foundations and that the borders across countries within the same grouping or business system.

In terms of research on comparative management and societal institutions, one area that has received vast academic attention in recent years, has been in the area of comparative corporate governance; corporate governance has been defined as,

"the relationship among a firm's shareholders, its board of directors, and its senior managers" (Roe 1994, pg. 1).

The growing literature on comparative corporate governance provides important preliminary comparisons between successful business systems. Comparative successful business systems research needs to take into account the nature of corporate governance, as well as the broader social, cultural, political issues such as the relationships between business and government, an issue that has been highlighted in international business research (Lenway and Murtha 1991; Hill 1995;

Shan and Hamilton 1991; Choi 1994; Choi and Lee 1997; Kogut 1991; Brewer 1993; Buckley 1996). We believe that the vast amount of academic research recently undertaken within comparative corporate governance highlights the importance of studying national business systems and the role of social and political aspects of capitalism (Dunning 1996; Boddewyn and Brewer 1994).

In terms of recent comparative corporate governance research, recent works such as Gerlach (1992); Franks and Mayer (1997); Roe (1994, 1997) compare the legalistic, stock market driven approaches of the United States and the United Kingdom with the more informal cross share holding system adopted in Japan and Germany. Legal contracts with ultimate redress to courts is fundamental to the operation of Anglo-Saxon business culture, especially in providing protection to widely dispersed minority shareholders (Roe 1994, 1997); this shows the general importance of the formal, legal institutions in Anglo-Saxon countries such as the United States and United Kingdom. In contrast, in countries such as Japan and Germany, major banks and insurance companies, act as external stakeholders by holding major shares in firms, exercising governance and control over internal management, through a more informal, relationship based exchange. This "communitarian" approach is also evident in other continental European countries such as Holland, Belgium, and the Scandinavian countries (Sorge 1991; Lenway and Murtha 1991; Nooteboom 1996; Noorderhaven 1995; Albert 1991). The contrast between these groups of country is also reflected in the political dimension (Sorge 1991; Hillman and Keim 1995), for example between United States system and the parliamentary system in European countries such as Germany.

Although the United States continues to be the dominant capitalist system, there are several countries with highly successful governance systems, or systems of exchange with structures of corporate governance and relationships distinct from Anglo-Saxon countries (Albert, 1991; Franks and Mayer 1997) such as the United States or United Kingdom. This difference, with its apparently concomitant success, raises important issues for comparative governance research (North 1990; Kaplan 1997; Franks and Mayer 1997; Nooteboom 1996), but also provides important hints for the newly emerging market economies of Eastern Europe and Asia which are in the process of determining their governance systems. Should countries emulate systems driven by the dynamic but short term requirements of efficient stock markets as is the case in the United States and United Kingdom or should they look to the apparently more stable bank financed systems prevalent in the communitarian countries such as Germany and Japan. The fact that the success of Germany and Japan in the 1980's and early 1990's seems to have been replaced by slow growth, and the renewed economic success of the United States and United Kingdom in the latter 1990's (Roe 1994, 1997) has created a continuing academic and policy debate concerning the relative merits and weaknesses of the two systems.

This chapter has two major objectives. The first is to use the above range of concepts and frameworks to analyse and compare the different approaches to governance and national business systems, that exist successfully today in the broader context of political embeddedness (Zubkin and DiMaggio 1990) and the important interaction between institutions and organisations (North 1990). We are thus further extending the earlier research of Roe (1994, 1997); Albert (1991); Whitley (1990); Brewer (1993), who helped to show the importance of the political and the firm's

environmental dimension in comparative business system research. It is a relatively simple, and broad generalisation to category various countries into such two groupings, however, we believe this helps emerging economies to clarify which broad aspects of these two systems can be incorporated into their own economies.

The second is to analyse what implications and lessons there are from the highly successful systems of the United States and United Kingdom and the equally successful but different business systems of Germany and Japan. Many of the emerging economies of the world, especially in Asia and Eastern Europe are developing and refining the nature of governance in their business systems (Olson 1991, 1992; Lecraw 1989; Elster 1989; Madhok 1995; Choi 1994; Choi, et al. 1996; Buckley 1990), requiring further research of their national business systems from international business researchers; the Asian economic and business crisis that began in 1997 has shown the further need to study the workings of national business systems. Our approach in this chapter is to analyse broad social, economic, political, international business trends which seem to categorise certain groupings of countries, and which can in turn provide guidelines for emerging economies in the global environment.

International Business and Society:

In the public policy domain, there has also been an intense debate on the role of state and national competitiveness in the age of global competition. Acknowledging the growing force of globalization, Reich (1991) discusses the reduced role of the state in enhancing the competitiveness of national industries. But more importantly, as discussed by various researchers such as Boddewyn (1988); Choi (1994); Choi et

al. (1996); Kogut (1993); Yarborough and Yarborough (1992); Hill (1995), there is an increasing movement towards the appreciation of political, cultural and socio-institutions aspects of capitalism. In contrast to the purely neoclassical driven economics models of markets, there is an important need to analyze the role of business in society and the role of politics in international business (Boddewyn and Brewer 1994; Kogut 1991; Hillman and Keim 1995):

“...political behavior does not develop in a vacuum; it is conditioned by firm, industry and environmental factors - particularly those found in the nonmarket environment that includes government.”
(Boddewyn and Brewer 1994, p. 121)

In recent years, there has also been an increased interest in broader models of corporate social performance, social control of business and stakeholders (Freeman 1984) within domestic settings, due to the growth in appreciation of more than one successful business system model. Such models have tried to go beyond the traditional narrow, efficient capital markets and shareholder driven approach to business and economics success. As quoted in Donaldson and Preston (1995), the diversity of global business systems was highlighted in the Economist (1993: 52):

In America, for instance, shareholders have a comparatively big say in the running of the enterprise they own; workers...have much less influence. In many European countries, shareholders have less say and workers more...in Japan managers have been let alone to run their companies as they see fit - namely for the benefit of employees and of allied companies, as much as for shareholders.

Roe (1994, 1997) and Easterbrook (1997) make the point that corporate governance needs to be seen in a broader context than that normally used, taking into account the political processes. For example, Roe (1994, 1997) in his in depth study has shown that the relative weaknesses of banks in the United States was due to political

considerations and regulations which prohibited the formation of bank concentration. This thesis has been further substantiated by Buckley (1997), who has shown that in Canada, a country with very similar background and culture as the United States, a much more important role is played by the banking sector, in a way similar to Germany and Japan; Buckley (1997), in a similar way to Roe's (1994, 1997) works show that the highly successful U.S. business system may not be simply due to evolutionary processes and superiority over other systems, but due to historical and political events. In this sense, we agree with Roe (1994, 1997) who sees corporate governance and ownership as part of a broader set of corporate relationships fundamental to industrial organisation within societies and the national business systems, what we believe are the political embeddedness aspects of national business systems. Zubkin and DiMaggio (1990) define "political embeddedness" as the following:

"By political embeddedness, we refer to the manner in which economic institutions and decisions are shaped by a struggle for power that involves economic actors and nonmarket institutions..."

(Zubkin and DiMaggio 1990, p. 20)

Global competition can also be seen from the viewpoint of the domestic organizations and institutions (North 1990, 1994) that motivate and constrain firm strategy and behavior. Such factors include national culture, legal and regulatory environment, business-government relationship, the role of financial institutions, and corporate governance system in the home market as well as host countries of multinational firms. The importance of the national business environment in influencing the organizing principles and competitive strategies of firms has been analyzed in Kogut (1991); Gomes-Casseres (1990); Uzzi (1997); Fruin (1992);

Albert (1991). According to their analysis, domestic institutions play as important a role in determining corporate behavior as the pressures of globalization. For example, in many parts of Asia, it is not financial markets but various government ministries that monitor corporate performance and control financial allocation. In many continental European countries such as Germany and Switzerland, the banking sector as institutional shareholders monitors corporate performance and investment decisions. Firm behavior and strategy, especially investment decisions such as new market entry, diversification, and innovation and new product development can be significantly constrained by the differences of home market institutions while at the same time providing sources of competitive advantages that may or may not be transferred across national boundaries. Thus, the following is proposed:

Proposition 1: In spite of the global nature of today's competition, the political, economic, and socio-cultural effects of home market institutions can have both positive and negative influence on firm capabilities and competitive advantages.

Institutions versus Organisations:

Following the distinction made by North (1990, 1994), we believe there is a need to distinguish between institutions and organisations when analysing national business systems. Institutions are the *rules* of a business system. North (1990) distinguishes between two types of institutions. The formal institutions such as common law, and market regulations are very important in Anglo-Saxon countries such as the United States, United Kingdom, Australia, Canada (Roe 1994, 1997; Ellickson 1991; Albert 1991). Informal institutions include codes of conduct; social norms; conventions, and other rules that society has developed over time. Such

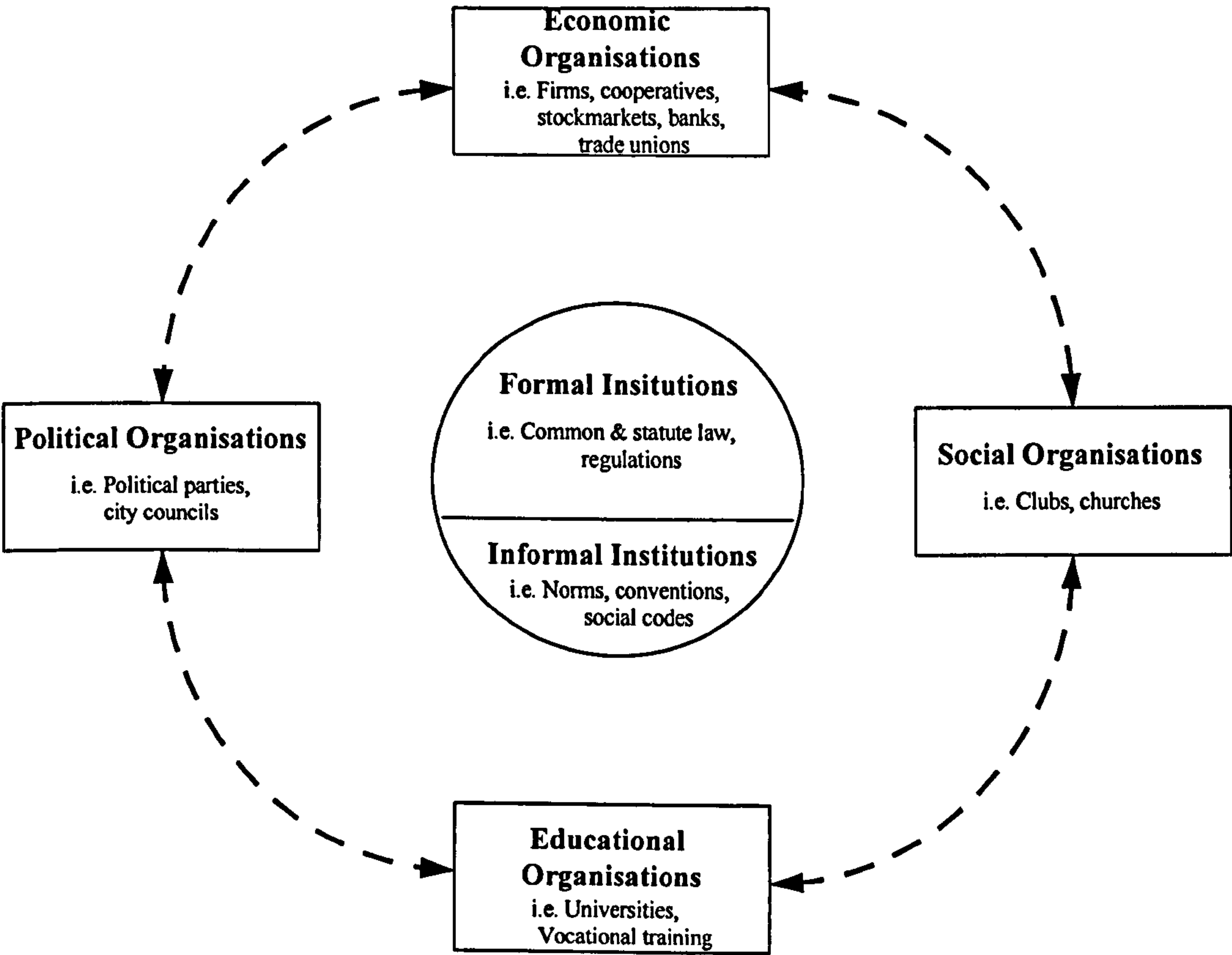
informal institutions which are closely linked to aspects of collectivism and personal exchange, are crucial for communitarian countries such as Germany and Japan (Fruin 1992; Choi 1994; Choi, et al. 1996; Orru, Biggart and Hamilton 1997). As North (1990, 1994) points out, the existence of either or both formal and informal institutions is no guarantee of economic efficiency.

Organisations are the *players* within a business system that take advantage of the formal and informal institutions (North 1990, 1994). There are four major types of organisations. Economic organisations, such as firms, co-operatives, stockmarkets, banks, trade unions; political organisations such as political parties, city councils; social organisations such as clubs, churches, sporting groups; educational organisations such as universities, vocational training. Members of organisations, the players in a business system, have common objectives. In turn, these are driven by beliefs and ideologies, within the national business systems, which can change the formal and informal institutions, or the rules in a business system.

The importance of national business systems has been raised recently in various works such as Hill, 1995; Choi 1994; Choi et al. 1996; Albert, 1991; Kogut, 1993. These researchers, however do not make a clear distinction between institutions and organisations. We believe that this distinction is crucial for understanding why the mere adaptation of certain formal institutions such as common or statute law, or regulation that help business systems to be successful in Anglo-Saxon countries such as the United States and United Kingdom is not necessarily sufficient for helping other countries to emerge and succeed in global competition. This is because they need to take into account the governance of the whole business system and the dynamic interaction between formal and informal institutions. Figure 2.1 is a

conceptualisation of North’s (1990, 1994) ideas which make a clear distinction between institutions or rules versus organisations or players in a business system.

FIGURE 2.1
Business Systems: Organisations and Institutions
(Adapted from North, 1990)



As analysed by Boddewyn (1988), firms compete in the environment, which includes various nonmarket, noneconomic values such as the polity, community, public opinion makers such as media. North’s (1990, 1994) structure of institutions and organisations helps to show the richness and realities of national business systems, much beyond the traditional, narrow neo-classical economic market paradigm. As discussed by Kogut (1991), countries’ competitiveness can be

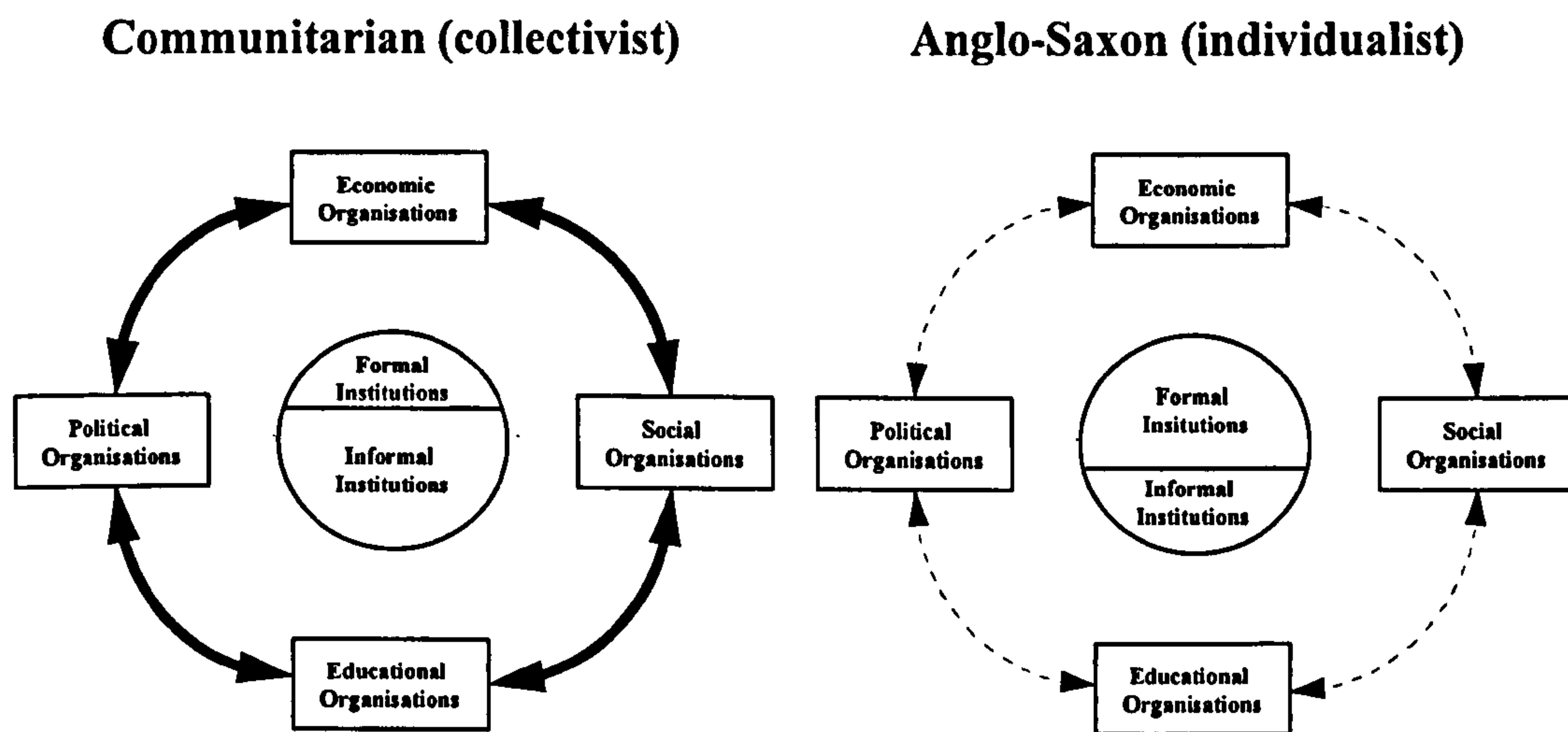
attributed to the interaction of their particular organisational and institutional capabilities.

We believe this interaction between formal and informal institutions, and in turn their interactions with the four types of organisations fundamentally determine the success of business systems. In individualist business systems, such as in the Anglo-Saxon countries of the United States and the United Kingdom, there is a relatively weaker connection across the four types of organisations. There is also a relatively larger proportion and importance placed on formal relative to informal institutions. Thus the economic organisations such as firms, stockmarkets, and in the U.S. the Federal Reserve, are quite separate from the political organisations of political parties and city councils (Hillman and Keim 1995; Boddewyn 1988; Roe 1994, 1997; Kogut 1993). In turn, working for an economic organisation, such as a firm, is seen as the public aspect of life, and separated from the private activities such as the social organisations of clubs, church.

In collectivist business societies, such as Germany or Japan, there are strong linkages across the four organisations: economic, political, social and educational. The linkage across these organisations is very strong, “communitarian” (Choi, et al 1996; Albert 1991; Sorge 1991; Lenway and Murtha 1991), as in most continental European countries and Japan. In such countries, there is also a larger proportion of informal institutions relative to formal institutions. As discussed in the in depth review of governance systems, Roe (1994, 1997) hints that the emerging economies in Eastern Europe are also adapting the communitarian system more characteristic of Germany and many continental European countries.

Figure 2.2 shows the relatively strong linkages among organisations and institutions in collective business systems, and the relatively weak linkages within individualist business systems.

FIGURE 2.2
Comparing Business Systems



Source: Adapted from Choi. et al , *MIR* forthcoming

Anglo-Saxon versus Communitarian Business Systems:

Since the late 1980's, Anglo-Saxon societies, such as the United States, United Kingdom, Canada and Australia have had their economies driven by the short termism of the stock market (Choi 1994; Bowman and Useem 1995; Lenway and Murtha 1991; Choi et al. 1996). Although the stock market undergoes a certain amount of government regulation and supervision, in general, the stock market is seen as an example of an efficient institution driven by market forces; as analysed by Easterbrook (1997), efficient capital markets require much less regulation and supervision. This stock market driven short-termism limits U.S. and U.K. companies' capacity to make highly profitable long term investments with long pay-back period;

no such restrictions seem to apply to their Japanese or German rivals (Fruin 1992). Decision makers in these countries have in consequence been rethinking the values of their business system and its appropriateness for the global competition of the 1990's.

A key benefit of such a style could be obtained by sharing information between corporations and their investors. The takeovers of the 1980's which were a sign of the market determining relationships, are now being displaced by co-operative agreements and strategic alliances, leading to an alliance based capitalism (Dunning 1996; Gerlach 1992). These bypass the traditional competitive model of markets and lay open the possibility of further sources of added value. As quoted in Watanabe and Yamamoto (1993), a German company manager once said that companies in the United States work for their shareholders, those in Germany for customers, and those in Japan for employees. The Anglo-Saxon governance system has been criticised in recent years as disenfranchising individual shareholder, distorting stock prices due to the thinness of the market and limiting the control that can be exercised over the activities of executive management (Roe 1994, 1997).

The literature has compared as extremes the communitarian German and the apparently networked Japanese systems of governance, with the impersonal stock market driven systems of the United States and the United Kingdom (Franks and Mayer 1997; Roe 1994, 1997; Fruin 1992). In general, the Japanese and German approach is to build trust between all the parties involved in a particular value chain and use group loyalty and understanding to build an informal system of network control rather than one that could be described to achieve governance of a particular legal corporate entity within the network. As noted in works such as Fruin (1992); Albert (1991); Choi et al. (1996); Whitley (1990), they rely upon several non-

contractual mechanisms to reduce the possibilities of opportunism. This contrasts with the Anglo-Saxon, approach based on the rule of law and contracts. The differences in approaches of Japan and Germany, versus the Anglo-Saxon countries such as the United States or the United Kingdom have led to researchers contrasting the difference as one of personal trust versus legal contracts systems. This leads to the following propositions:

Proposition 2: The relative superiority of either the Anglo-Saxon or the Communitarian business systems can depend on the nature of political embeddedness and the interactions within the systems between market and nonmarket forces.

Markets and Governance:

Markets are the systems prevalent in Anglo-Saxon societies which first seek to de-personalise social interactions by mediating them through arms length competitive trading and abhor the hegemony of any ideology as anathema to free-thinking, liberty and creativity. It hardly needs to be said that loyalty is not necessarily absent in the operations of Anglo-Saxon systems but in many ways the supreme loyalty is to a system which collectively transcends individuals, groups and ideas allowing the individuals right to pursue his own interests within a framework or law and contract. These systems have access to what we believe Williamson (1985) has called the high powered incentives of the market. In fact elsewhere, following, through on Williamson (1985) idea of a hybrid system between markets and hierarchies we have suggested that what is perhaps emerging are more complex hybrids based on a more complex vision of the world than that available. Earlier work by Etzioni (1988) has suggested a compromise way forward that permitted both perspectives to have their

place however we feel for corporations the requirement is for a synthesis of these perspectives to emerge not for their simultaneous mutually antagonistic sustenance.

What is available both in terms of insights and responses seems to be a function of the situation and is something organisations must consciously act to design for if they wish to have some control over their survival prospects in the global market place. For example will it be possible for German and Japanese corporations faced with a significant downturn in the world economy or increasingly effective competition from both new and old players to manage downsizing successfully (Fruin 1992). The downsizing of organisations based on strong group or ideological loyalty suggests significant difficulties. The commodities traded in return for loyalty, such as long term stability of employment with gradual progression through a hierarchy, will increasingly not be open for an internationally competitive company to offer. On the other hand, flatter organisations with shorter chains of command may allow less scope for noisy or biased loyalties to develop. Rather than disappear, company loyalty may just be replaced by loyalty to individuals, at least those well placed to monitor disloyal acts. While person mediated bonding in groups is strong its flexibility is suspect over the full range of imaginable trading conditions. Its weakness is its instability when people are forced out and the deep internal antagonism that can develop within an organisation when group loyalties are betrayed. Structuring the environment for senior managers in changing time may thus involve finding new ways to incorporate elements of the market, loyalty hierarchies and perhaps even familial loyalty. The longer time scales on which the later are based may provide stability in the face of otherwise impossible to manage adjustment tensions.

<i>Type of governance system</i>	<i>Key characteristics</i>
<i>ANGLO-SAXON GOVERNANCE</i>	<i>Strong legal system, reliance on contracts; importance of the individual; belief in free <u>market exchange</u> and trade; support of major innovations and entrepreneurship; separation of financial markets from banking and industries</i>
<i>COMMUNITARIAN GOVERNANCE</i>	<i>Importance of social groups and laws for communities; concern with <u>redistribution</u> of wealth; importance of banking relative to financial markets; government intervention in industry; managed trade rather than free trade; overlap among banking, industry, financial markets</i>
<i>EMERGING MARKET GOVERNANCE</i>	<i>High levels of uncertainty in business environment; volatility and rapid developments in consumer demand; not always stable political systems; legal systems relatively weak; important role of trust and <u>reciprocity</u> based types of exchange.</i>

Source: Adapted from Choi & Raman (1997)

Table 2.1: Three major governance, business systems

The emerging market business system refers to certain regions of the world that seem to be rapidly entering the world business system and includes most of the Asian countries, some of the Eastern European countries such as Hungary, Czech Republic, and some of the Latin American countries such as Mexico, Chile, Brazil. Due to their phenomenal economic growth, large populations, and increasing corporate success in the global environment, the emerging markets have become a key focus for personal and institutional investors as well as for international corporations. At the same time, the nature of society, business exchange, legal systems, consumer demand, public policy in these emerging markets which are often very different from

the more mature economies have provided difficult dilemmas for North American and Western European government and corporations (Olson 1991, 1992; Choi et al. 1996). But there is also a need to appreciate the differences even among the mature economies of the world, especially between the Anglo-Saxon business system versus the Communitarian business system of the world. Table 2.1 summarises some of the key distinctions among the three major types of governance systems, the “new triad”.

Emerging Business Systems:

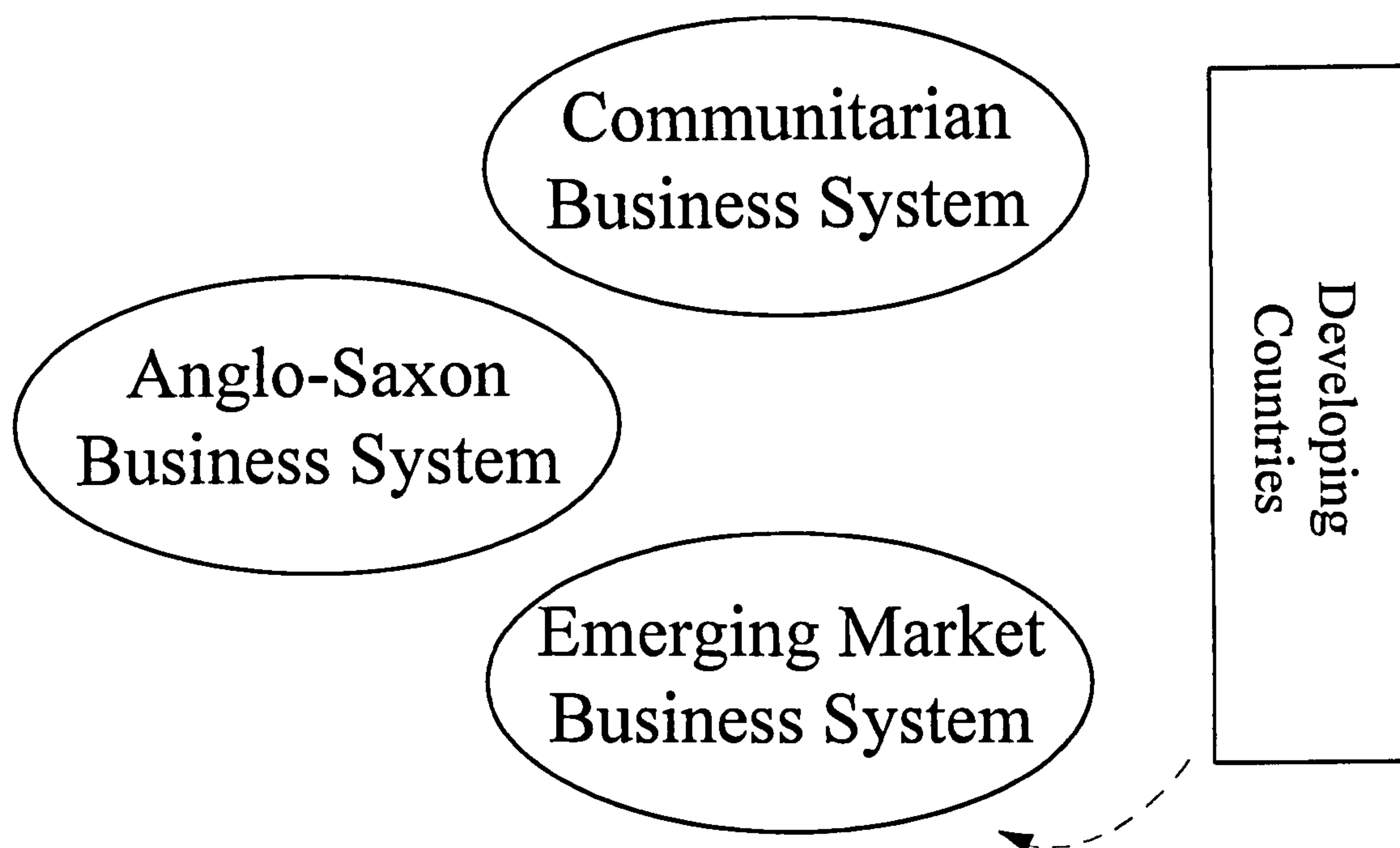
It is beyond the scope of this chapter to conclude whether the whole of the Anglo-Saxon, individualist system is superior or inferior to the Communitarian, collectivist system; both mature business systems have been successful for at least the latter half of the 20th century. The relative success of these two systems in terms of the overall global political economy, could be determined by various factors such as the types of industries, the level of the business cycle, the importance of the political system (Choi 1994; Choi et al. 1996; Whitley 1990; Orru, et al. 1997). Nevertheless, there may be lessons and guidelines from these two systems for the emerging economies that are establishing appropriate governance in their national business system. In order to understand which aspects of the systems are of relevance, it is importance to understand the major characteristics of emerging economies. They can be characterized as the following:

- High economic growth rates;
- High overlap within and between institutions and organizations;
- Relatively weak legal system for the enforcement of contracts;
- High uncertainty and turbulence, due to rapid change;

- Lack of development of financial services industries, such as stock markets and investment banking.

Some of these characteristics have similarities to new, emerging industries, especially in high technology industries.

The “emerging” regions of the world, especially Asia and Eastern Europe provide a potentially important area of research in terms of the rapid development of institutions and organisations and the difficulties of combining them, as shown by the economic crisis in various Asian countries in 1997. As these emerging societies which operate under greater uncertainty and fewer institutional and legal structures become more mature, and developed, it is important to see the differences between these emerging regions and other regions of the world. Other recent works that have addressed related issues of enforcement, co-operation, in different business systems include Noorderhaven (1992); Choi (1994); Olson (1991, 1992); Choi, et al. (1996); Besley (1995). In general, in emerging economies, the enforcement of agreements or co-operation in general, becomes problematic, because of the lack of laws, high uncertainties in the legal system, difficulties in communication and infrastructure. Including the emerging business systems to the better established Anglo-Saxon and Communitarian systems leads to a, “new triad” of global competition that complements the traditional economic triad of United States, Europe and Japan. Under this new triad, some of the developing countries will advance and enter the emerging market business systems. This is shown in the figure below.



Source: Adapted from Choi. et al , *MIR* forthcoming

Fig. 2.3: The “New Triad”: business systems

In many parts of Asia and in Eastern Europe it has traditionally been the state and other types of “nonmarket” institutions (Besley 1995; Arnott and Stiglitz 1990) which has taken responsibility for individual welfare. In the current economic crisis climate in Asia, this clearly buttresses the desire of entrepreneurs to move in a legal and contracting rather than trusting direction. For example, in many emerging Asian countries, informal credit and insurance arrangements are often used instead banking and insurance services linked to formal legal contracts; such nonmarket institutions require non-anonymous peer reviews and monitoring based on trust. This has many similarities with the overlapping and intertwined organisations and institutions we see in the communitarian business systems of Germany and Japan.

The implication of this analysis can be explored a little in the context of the developing market economies in Eastern Europe which has a history saturated with collectivist, or absolutists, who controlled affairs of states with very dynamic

boundaries. We might be led to assert, then, that the absence of individualism would promote a high trust form of society. In the familial sense that is probably true. However, the experience of enforced collectivisation has now led to a pervasive, if not universal, reaction against it, such that individualism and individual rights against the state, are now firmly on several national agendas. This suggests a desire for a transition direct from one form of society, collectivist to another, individualist. However this is unlikely to be possible as the "rule of law" is a pre-requisite for this and this requires a great deal of certainty in the conduct and regulation of commercial affairs (Olson 1991, 1992). Hence, just as the lawlessness of the American Wild West may be helpful in explaining the popularity of legally enforced contracts in contemporary America, so the newly forming "Emerging East" may end up similarly replete with legal support for contract enforcement.

Proposition 3: Emerging economies that are in the process of forming business systems need to assess the relative strengths and weaknesses of both Anglo-Saxon and Communitarian business systems.

The increasing prevalence of emerging markets, countries and regions have led to increased social science and management research on the different institutions, corporate strategies, organisational structures that exist in these areas relative to the more mature and developed parts of the world such as North America and Western Europe. The importance of understanding some of the fundamental differences in these emerging societies has led to research on various types of "nonmarket" or what could be called, non-standard customs and practices of transactions, business, exchange in these emerging societies. Recent works highlighting such differences

include Choi et al (1996); Choi (1994); Arnott and Stiglitz (1990); Yarbrough and Yarbrough (1992).

Combining Business Systems:

As analysed in depth by North (1990, 1994), there is no guarantee that a success national business system, whether Anglo-Saxon or Communitarian can be successfully transferred to other parts of the world, such as emerging economies (Olson 1991, 1992). The economic crisis of 1997 in various Asian countries such as Indonesia, Thailand, South Korea, Malaysia has shown the difficulties these various countries have experienced in combining these aspects of Anglo-Saxon (individualist) and Communitarian (collectivist) business systems into a mature business system such as in the United States, United Kingdom, and Continental Europe. For example, as shown in figures 2.1 and 2.2, what should be the relative ratio of formal, legal mechanisms to informal, societal norms in a national business system. Was the Asian economic crisis that began in 1997, due to an insufficient level of formal, legal exchange mechanisms, or were they due to the fundamental difficulties of adjusting to globalization, emergence, and the combining of individualist and collectivist business system characteristics.

In countries such as South Korea, the economic crisis that began in 1997 were fundamentally due to the difficulties in an insufficient banking sector, that has misallocated funds to certain inefficient, government supported corporations. In other Asian countries such as Malaysia, the economic difficulties were due to the greater exposure of a recently developed stock market that was over-capitalised by foreign investment relative to the size of the domestic economy. The complexities of national

business systems as shown in figures 2.1 and 2.2, would imply that the realities of the Asian economic crisis that began in 1997 were due to the difficulties of the relationship not only between the “institutions” or formal and informal ratio within the national business system, but also the relationship among the “organisations”, the economic, political, social and educational. Both institutions and organisations need to reach a mature and appropriate balance for a national business system; globalisation, and other dramatic changes in the global political economy have made such balances more difficult to achieve as shown by the Asian business system crisis that began in 1997.

As analysed by North (1990, 1994), the relationship between institutions and organisations need to be analysed as a whole in order to fully appreciate the complexities of successful economic performance. Traditional research has tended to generalise the success of mature economies in Western Europe and North America and what hints they can provide to new emerging and still developing economies. The purpose of this paper was to develop the general frameworks of North (1990, 1994) further, to show the difference between the Anglo-Saxon (individualist) and Communitarian (collectivist) business systems, within the successful mature economies of Western Europe and North America. We also took into account in our analysis, the role of “political embeddedness” or the interaction between economic and non-economic or nonmarket actors (Zubkin and DiMaggio 1990; Boddewyn and Brewer 1994; Choi 1994; Olson 1991, 1992), in determining the success of national business systems. The Anglo-Saxon and Communitarian business systems have a different emphasis on the relationship between organisations, the relative importance of formal versus informal institutions, and the overall interconnections between

organisations and institutions within a national business system. In this sense, this has provided an even more complex national objective for emerging business systems such as in Asia, that have tried to combine elements of both business systems:

“...it is the mixture of formal rules, informal norms and enforcement characteristics that shapes economic performance. While the rules may be changed overnight, the informal norms usually change only gradually...The implication is that transferring the formal political and economic rules of successful Western market economies to third-world and Eastern European economies is not a sufficient condition for good performance.” (North 1994, p. 366)

Conclusions

The purpose of this chapter was to analyze the role of political embeddedness in comparative business systems research and its potential implications for the governance systems of emerging economies. We believe our preliminary research and framework takes into account the reality of the local, non-economic (Whitley 1990; Olson 1991, 1992; Choi 1994; Boddewyn 1988; Toyne 1988; Zubkin and DiMaggio 1990) forces that influence firm capabilities and behaviors. It is beyond the scope of this chapter to conclude whether the Anglo-Saxon individualist system is always superior or inferior to the Communitarian collectivist system. Our purpose was to analyze their relative strengths and weaknesses, especially the relationship between institutions and organizations (North, 1990) so that they can serve as potential guidelines for emerging economies that are in the process of establishing a governance system; emerging economies have a choice either between the two systems, or a combination of both systems. But such analysis also shows the crucial importance of analysis that goes beyond, pure market and economic factors, that takes into account the nonmarket actors and factors that influence the success of national

business systems. Emerging market business systems add an additional generic complexity due to rapid growth, lack of various institutions, and the general level of uncertainty in their business environment.

In this chapter we have highlighted a number of significant issues which in our opinion will help us analyse, in the next chapter, the success and failure of the emerging market economies, especially in Asia, in the recent past. These include the fact that in spite of the global nature of competition, the home market constraints imposed by domestic institutions and organizations (North, 1990) can have both positive and negative influence on firm capabilities and competitive advantages. Also, the relative superiority of either the Anglo-Saxon or Communitarian business system depends on the nature of political embeddedness and the interaction between market and non-market forces in each country. Finally, we highlighted the development of the “emerging” market business system (Choi, 1994), and suggested that the emerging market countries should assess the relative strengths of both the mature business systems in the context of their own political economy.

FINANCIAL CAPITAL ALLOCATION & DEVELOPMENT

Introduction:

In the previous chapter, we highlighted the role of political embeddedness in comparative business systems research and its potential implications for governance systems in emerging economies, taking into account the non-economic forces that influence firm capabilities and behaviour. We suggested that analysis of issues such as governance, and capital allocation should be grounded within the “new” triad framework of competing business systems (Choi et al, 1996). This is necessary because existing research in markets and capital allocation, especially from an international business perspective, does not take into account fully the different nature of costs in emerging economy business environments. However, most of developing countries, including Asian countries such as Indonesia, Thailand, Malaysia, Vietnam, China and India are all emerging, rather than mature business environments; globalization has further complicated the nature of such emergence (Rodrik 1997; Hirschman 1994; Putnam 1996). The importance of such different costs, whether they be monitoring or enforcement costs in exchange or general costs about product quality, and obtaining information and knowledge can be seen in the ongoing research and debate on transaction costs (Hirsch & Lounsbury 1996; Choi, 1994), although the majority of the past research has been in mature, developed, single country contexts. For example, the academic debate on the relevance of transaction costs for market and nonmarket based exchange has continued in various works as Williamson (1996); Hill (1995); Nooteboom (1996); Ghoshal and Moran (1996); Granovetter (1985); Parkhe

(1991); Simon (1991), with the conclusion that both market and nonmarket based exchange within organizations are crucial for the success of any business environment. As discussed by North (1990, 1991) and Olson (1992), institutions have been developed by societies to create order and reduce uncertainty in exchange and cooperation; in Asia's emerging economies, such institutions have not been fully developed, magnifying the level of uncertainty; the globalization of capital movements combined with the "level" of the still developing financial institutions in Asia were key factors in the Asian economic crisis.

In the first section of this chapter, we analyze the Asian economic crisis through the role played by two major factors: "knowledge" and "financial capital" allocation. We believe that an interdisciplinary framework incorporating international business, international economics and economic development can help to provide a more systematic understanding of not only past Asian economic success, but the present Asian economic crisis. The fundamental issue is that the national business systems (North 1990; Olson 1992) in Asia were phenomenally successful for decades and then dramatically problematic in 1997. There is a need to understand the factors for past success, and which of these factors, if any were responsible for the crisis which began in 1997. In analyzing the economic crisis in Asia, we include the economic as well as the various non-market forces, such as institutional settings that influence the nature of exchange and co-operation in emerging economy environments (Whitley 1992; Boddewyn 1988; Brewer 1992). Thus, although global capital movements have been given as a primary economic reason for the Asian economic crisis (Krugman 1998), there is a need to analyze how capital was actually

created, allocated and “governed” in Asia, through the institutional arrangements and why these past arrangements became inappropriate in the late 1990’s crisis.

In our opinion the crisis in Asia is an opportunity for international investors to try and establish themselves in the region; but, repeatedly their efforts are frustrated due to the inherent psychic distance towards Asia. In the next section of this chapter we attempt to further develop a framework for overcoming such, psychic distance towards Asia, in order to create the “pre-negotiation” fundamentals in terms of beliefs, perceptions, images, values. Such pre-negotiation psychic distance needs to be overcome in order to proceed to successful international negotiations (O’Grady & Lane 1997; Kogut & Singh 1988; Gatignon & Anderson 1988). Rather than focusing on the well researched area of national, culture (Hofstede 1980), our purpose is to focus on the more general national business systems (Kogut 1991; Whitley 1992; North 1990; Olson 1992) with a focus on the implications for pre-negotiations. Our analysis takes into account the various political, sociological, legal, anthropological, organisational and economic aspects that help to comprise a business system (Kogut 1991; Etzioni 1988; Brouthers & Bamossy 1997; Thurow 1992; Boddewyn 1988; Lenway & Murtha 1994; Murtha & Lenway 1994; Choi, et, al. 1996; Geringer & Hebert 1989; Choi & Lee 1997). Most of the research on international bargaining and negotiations has shown that over time, co-operative relationships are terminated for the inverse reasons for which they were formed; thus when the possession or control of certain resources is reduced, the nature of the co-operative relationship is also weakened (Beamish & Inkpen 1997; Young & Olk 1994; Sohn 1994; Parkhe 1991). We believe that differences in national business systems, are a permanent underlying

and fundamental factor in the nature of international negotiations and thus play a much more important role in the long term success of such international relationships.

We analyse the question of whether the transactional aspects of negotiations could be the same in mature versus emerging market environments. In emerging business environments, the realities of uncertainty and high measurement and enforcement costs may require a mutual commitment (Schelling 1960, 1966) type approach to international negotiations. This fundamentally differentiates the Asian environment from more mature business environments, where there are much lower uncertainty, measurement and enforcement costs (North 1990, 1991).

SECTION 3.1: ASIAN ECONOMIC CRISIS

Although some international economists such as Krugman (1998) believe that the Asian economic miracle was exaggerated, it is difficult to deny the phenomenal economic growth throughout the Asian region over the last thirty years, which saw the increase in per capita incomes in countries such as South Korea increase over a hundred fold from U.S. \$100 dollars to U.S. \$11,000 dollars. Although many purely economic and market based explanations and theories have been formulated about the Asian crisis (Krugman 1998), the noneconomic, organisational and institutional factors in the crisis seem as important as the purely macroeconomic and market driven fundamentals. The research of Simon (1991), North (1990) and Olson (1992) on how organisations influence and change institutions is especially relevant for such analysis that takes into account economic as well as noneconomic factors in business and economic performance. North's research showed how the combination of formal and informal constraints determine the rules of exchange and change in national

economies (Hirsch & Lounsbury 1996), combining the political, sociological, historical and ideological aspects of behavioural based theories along with the rational theories of organisational economics.

The approach in this chapter is twofold. Firstly, we analyse the two systems of capital allocation and ownership that have been proven widely successful in the mature economies of the world. These two major business systems can also be fundamentally divided into shareholder and stakeholder systems of capital allocation and ownership structures (Roe 1994; Hirschman 1994; Putnam 1996; Freeman 1984; Albert 1991). Shareholder capital allocation systems, which characterise the business system in countries such as the United States and United Kingdom, are dominated by financial equity markets, strong legal systems and externally driven measurement of business and economic performance. In contrast, stakeholder capital allocation systems in countries such as Germany and Japan are more internally organised around collaboration among banking, financial markets, government and employees (Gerlach & Lincoln 1992; Fruin 1992; Roe 1994); banks and other non-institutional organizations play the crucial role in capital allocation. The Asian economic crisis was greatly due to the fact that in many of the more emerging countries of Asia including Thailand, Malaysia, Indonesia, neither systems of external nor internal financial capital allocation had been fully developed. Thus, the “level” development of financial institutions in the national business system (Levine 1997; Demirguc-Kunt & Maksimovic 1996; Boyd & Smith 1996) is crucial to understanding the Asian crisis.

Secondly, we focus on the importance of taking into account the nature of “knowledge” acquisition, diffusion and delivery in emerging economies. Despite the

past economic success of emerging economies in Asia, Eastern Europe and Latin America, international business research has not sufficiently analysed how such emergence environments differ from the mature business environment of North America and European Union; exceptions include Beamish (1988); Choi (1994); Inkpen & Beamish (1997); Landa (1994); Olson (1992). Emerging economies face a much higher level of uncertainty, change, requiring additional factors in analysis, relative to mature economies. Under uncertainty, the traditional advantage of pure markets, the power to co-ordinate exchange partners becomes considerably weakened (Simon 1991).

The balance between the three major parts of knowledge, acquisition, diffusion and delivery have changed. The strength of the collective, relationship and trust based national business systems in Asia were based on the “diffusion” and dissemination of externally created knowledge, usually from foreign countries such in North America and Western Europe. However, as the global business environment becomes increasingly dependent on creativity, R & D, technology, the so called, high-tech industrial milieu (Castells and Hall 1994), global competitiveness in knowledge resources has become more dependent on acquisition and delivery, rather than diffusion. In this sense, the knowledge allocation mechanism in Asia, based primarily on past diffusion has become no longer appropriate in today’s global business environment.

Double Triad Framework & Asian Emerging Markets:

According to the definition of North (1990), national institutions are formal and informal institutions, which mix with national organizations in determining the

economic performance of a country. In terms of international business research, related research has focused on the role of the state in affecting the success of national firms and has been analyzed in various works such as Rugman et al. (1995), Lenway and Murtha (1994), Murtha (1993), Murtha and Lenway (1994), on the role of the state; Kogut (1993) on country capabilities and technological innovations; Boddewyn (1988), Brewer (1992) on political risk and embeddedness. In reality, of course firms take into account not only international market competition, but also the home market constraints, or the role of national institutions; this is similar to the concept of two level games, which has been widely researched in international relations and international political economy, which analyse simultaneously national institutions and international diplomacy (Putnam 1988). As analysed by Boddewyn (1988) firms compete in the environment, which includes various nonmarket, noneconomic values such as the polity, community, public opinion makers such as media. North's (1990) structure of institutions and organizations helps to show the richness and realities of national business systems, much beyond the traditional, narrow neo-classical economic market paradigm. As discussed by Kogut (1993), countries' competitiveness can be attributed to the interaction of their particular organizational and institutional capabilities.

National Institutions versus International Markets:

Recent research on multinational corporations from the United States, Germany and Japan show the continuing importance and influence of their national institutions on their strategies such as R & D, capital financing, direct investment (Pauly & Reich 1997). This study based on three parts of the traditional economic

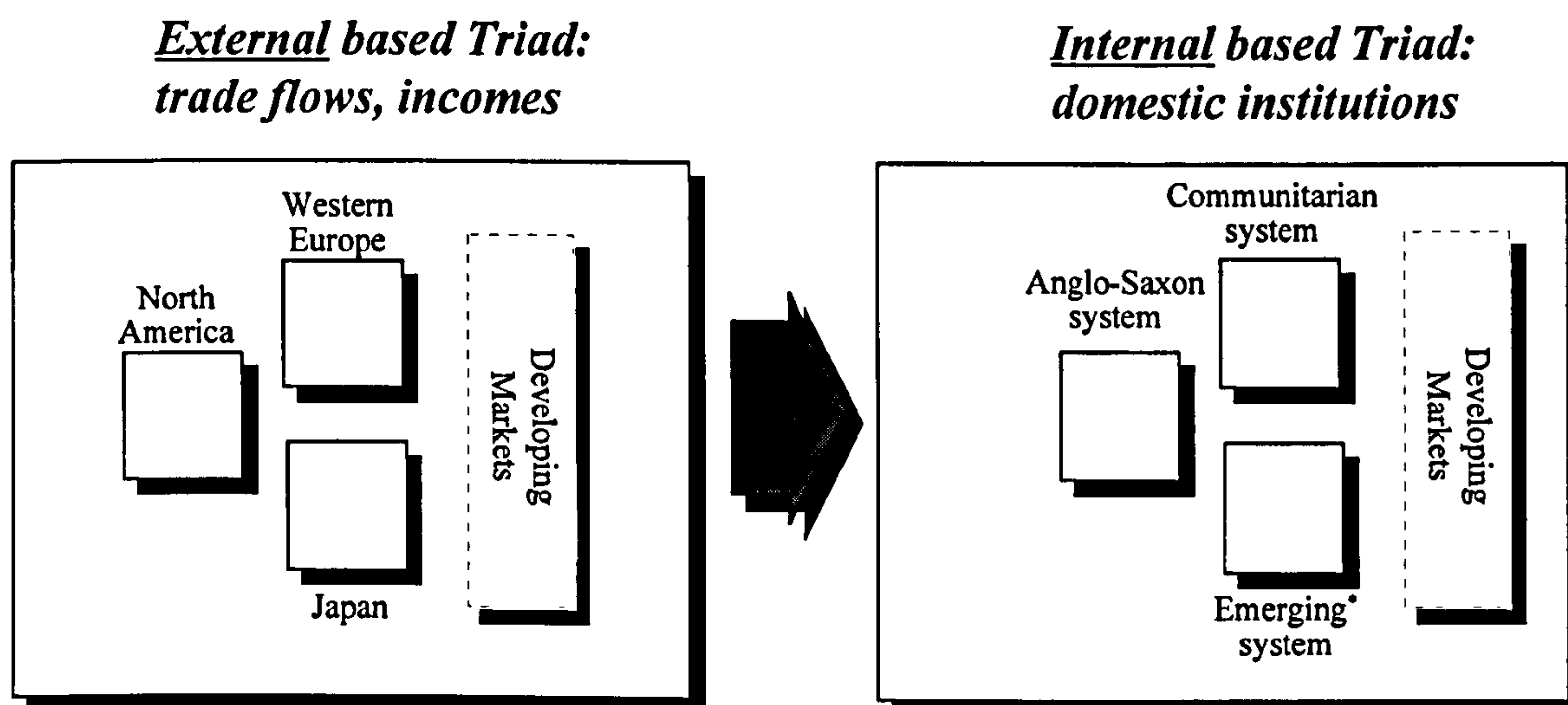
triad, the United States, Western Europe and Japan has shown that in terms of national institutions, and their influence on multinational corporations, globalization of international markets has had a smaller effect than expected. This adds further impetus to our framework which creates a, double triad grouping of countries, one triad of international markets (Vernon 1966), the other triad of national institutions.

Firms face the constraints and advantages of national institutions. Dunning (1996) in a recent, comprehensive study of factors that help firms to be globally competitive has discovered that firms from certain countries such as the United States find national institutions such as government regulation, subsidies, social practices, relatively less helpful for global competitiveness. However, for European and Japanese companies, national institutions were seen to be an advantage and in support of global competition (Pauly & Reich 1997); this was also the case for emerging market economies.

Rugman (1993, 1997) helped to create the double diamond framework, taking into account international factors, and thus broadened the single diamond analysis by Porter (1990) of purely national competitiveness factors. Our double triad framework, in a similar vein combines the existing, well known, “external” global economic triad, which is based on international markets, income levels, geography (Dunning 1996; Vernon 1966; Ohmae 1985) with the realities of an “internal” global triad taking into account, national institutions (North 1990).

In terms of the second component of the double triad, this would be the domestic institutional factors such as the role of equity markets versus banks in financing, the strength of legal systems, the collectivism or individualism of the societies. Under this type of groupings, we have the Anglo-Saxon business system

(U.S., Canada, United Kingdom, Australia); a Communitarian business system (continental Europe); an emerging business system grouping (parts of Asia, Eastern Europe, Latin America). This type of double triad framework is shown in the figure below:



Source: Adapted from Choi & Raman (1997)

Figure 3.1: Double Triad - external and internal

Financial Capital Allocation

In terms of understanding emerging Asia from this new “double triad” framework combining international markets and domestic institutional constraints, our analysis is based on the “business system”, or the various economic, political, social, and business issues that constrain and influence the behaviour of corporations from these systems (Olson 1992; Kogut 1991; Whitley 1992). The first major factor which can help to frame the past economic success and present economic crisis in Asia is that of “capital allocation”. The issue of capital allocation and economic success has been one that has been argued for at least most of the 20th century.

Prominent economists such as John Hicks argued that the financial markets of the United Kingdom allowed rapid industrialization in England, through the mobilization of capital and overcoming of risk for the development of immense, major industrial projects (Hicks 1969). In contrast, Joseph Schumpeter argued that banks rather than financial markets were fundamental to economic success, because banks would identify and fund the key entrepreneurs to develop technological innovations (1934). The academic debate on the relationship between financial factors and economic growth has been discussed in detail recently by Levine (1997); King and Levine (1993); Shleifer and Vishny (1997). Empirical research has shown that although countries with larger banks and more active financial markets tend to also have higher economic growth rates, it is not certain which particular financial allocation mechanism, or which mix of banks and financial markets helps to create the greater economic success (Levine 1997; Albert 1991; Stern 1989).

The allocation of financial capital, within the financial systems literature is an immense area covering international economics, economic development and corporate finance (Giovannini and Melo 1993; Caprio, et al. 1994; Greenwood and Jovanovic 1990; Fry 1995). Fundamentally, financial systems serve major functions including: allocating resources; monitoring management performance; mobilizing savings; providing information about prices; facilitating exchange in the economy (Merton and Bodie 1995; Levine 1997). The effectiveness of financial systems in leading to economic success has been analyzed in two major types of models. In the first type of economics and finance model, the financial system affects the rate of capital formation through savings rates changes and reallocations (Romer 1986; Lucas 1988; Rebelo 1991). In the second type of economics and finance model, the financial

system helps to encourage new technology and production processes (Romer 1990; Grossman and Helpman 1991; Aghion and Howitt 1992).

The economics and financial literature behind these two major models of economic success have not provided conclusive theoretical or empirical conclusions in three major areas. First, there is very little research on the role played by institutional factors such as legal traditions or political systems in influencing effective financial capital allocation; recent exceptions include LaPorta (1996); Choi, et. al. (1996); Engerman and Sokoloff (1996). Second, although both effective banking and financial markets are seen to be crucial to economic success (Levine 1997), there are few conclusions on which mix of these financial instruments such as banking, insurance, equity markets, bond markets are optimal for a particular economy or region. Third, there is very little evidence on the linkage between financial capital allocation systems, and the level of economic maturity (Demirguc-Kunt and Maksimovic 1996). For example, it is not certain whether particular capital allocation mechanisms such as banking, equity or bond markets, derivatives which may enhance economic success in mature economies such as the United States or United Kingdom, are appropriate for more emerging economies such as in regions of Asia, Latin America or Eastern Europe (Choi, et, al. 1996).

Shareholder & Stakeholder Systems:

For the majority of the economies in Asia, capital allocation since the 1960's has tended to be closer to the model envisioned by Schumpeter (1934), where banks rather than financial markets play a major role in capital allocation decisions. The only exception to this system in Asia probably is Hong Kong, with its relatively

service and equity market driven systems (Choi, et. al. 1996; Amsden 1989; Wade 1990), which was modelled very much after the United States and United Kingdom.

The unexpected Asian economic crisis of 1997 has created research needs to more fully understand the role of domestic and international institutions in the effectiveness of private sector organizations such as banking, equity and bond markets. But even before the Asian economic crisis of 1997 and more general emerging markets crisis in Latin America and Russia in 1998, there had been a growing academic and policy debate on systems of capital allocation and effects on national and regional economic success within the mature economies of North America and Western Europe. The majority of the past research before the 1990's in economics, finance and international business has tended to study the financial capital allocation system common in the United States and United Kingdom. This system is based on a strong legal structure, along with external monitoring of economics, business and management performance through financial markets, especially equity markets (Jensen & Meckling 1976; Jensen & Murphy 1990). But the economic success of countries such as Japan, Germany, France throughout the 1980's, where financial capital is fundamentally allocated through banking and insurance organizations raised fundamental questions of two systems (Albert 1991). As mentioned earlier, this academic debate goes back at least as far back to Schumpeter's (1934) belief in bank driven capital allocation, versus Hick's (1969) belief in financial, equity markets driven capital allocation.

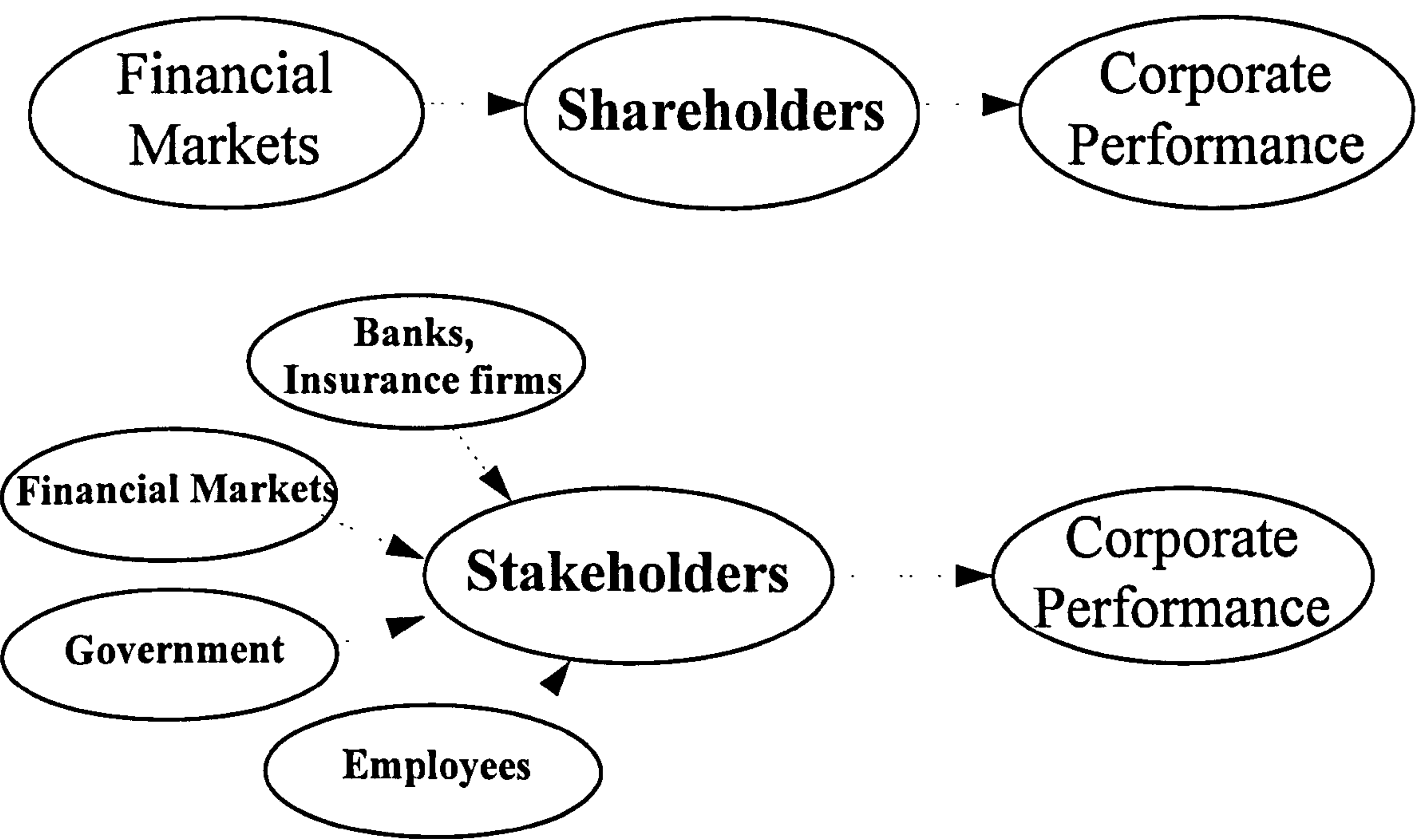
The more recent research in economics and finance has begun to empirically test the differences between the financial markets driven capital allocation system of United States and United Kingdom, relative to the banking driven capital allocation

system of Japan and most of continental European countries, in works such as Gerlach and Lincoln (1992); Franks and Mayer (1997); Roe (1994). In countries such as Japan and Germany, and most of continental Europe, major banks and insurance companies, act as external stakeholders by holding major shares in firms, exercising governance and control over internal management, through a more informal, relationship based exchange. Countries using this type of capital allocation mechanism have been broadly called “stakeholder” economies, or social market economies (Albert 1991; Choi, et. al 1996). Many Asian national business systems are still, emerging, and can often be a mix of both shareholder and stakeholder systems (Fruin 1992; Gerlach & Lincoln 1992).

Asia's Mixed Systems:

As discussed by Simon (1991), the shareholder based system of free market exchange assumes that exchange occurs with very little knowledge and identification of the other exchange partner; whereas in reality, exchange needs to take into account such identification, and shared values. We believe that in understanding Asia, there is a need to appreciate that the difference between shareholder and stakeholders types of exchange can exist in “mature” economies, and is not an issue of mature versus emerging economies. Thus, the relatively less researched (Brouthers & Bamossy 1997; Choi, et al. 1996; Freeman 1984) stakeholder systems which represent most continental European countries (Albert 1991) have a far greater overlap in organisations and institutions, and where exchange across organisations such as banking, government and financial markets, resembles more the close exchange found within departments of an organisation in the more widely researched, shareholder and

financial markets driven system of capital allocation (North 1990; Simon 1991; Olson 1992; Hirschman 1994). The differences between shareholder and stakeholder systems of capital allocation is shown in the figure below.



Source: Adapted from Choi, Lee & Kim, JIBS forthcoming

Figure 3.2: Financial Capital creation and allocation

The acceptance of this diversity in relations among organisations and institutions (North 1990; Simon 1991) and between shareholder and stakeholder systems in mature economies, helps to overcome the, psychic distance, psychological uneasiness (Kogut & Singh 1988; O’Grady & Lane 1996; Johanson & Vahlne 1977) towards emerging business systems, such as Asia. Our focus on comparative national systems, from the viewpoint of financial capital allocation systems has similarities to past research on institutional aspects of organisational analysis such as Hirschman (1994); Putnam (1996); Whitley (1994).

The bank driven financial capital allocation system envisioned by Schumpeter (1934) as the ideal system for economic success is a collective, relationship based,

stable national business system. It's fundamental strengths are long run performance measures, relatively equal distribution of wealth and a broader inclusion of social issues such as the environment; its fundamental weaknesses are an inability to change quickly, and a system relatively closed to external, including foreign participation (Gerlach and Lincoln 1992; Choi, et. al. 1996; Albert 1991). As discussed earlier, most Asian countries adopted this system of financial capital allocation throughout the 1960's until the crisis of 1997. There were two major changes internal and external to Asian national systems during this period. The first was the general external change of globalization, or the integration of goods, services and capital. As discussed in depth by Rodrik (1997), although there is a general consensus that globalization of goods and services is economically positive, it is not certain that such benefits exist for globalization of capital. Asian business systems, which experienced the volatility of global financial capital movements in 1997, did so from a stakeholder base or a system, where financial capital was traditionally allocated through organizations such as banking, rather than financial equity and bond markets.

As discussed earlier, the stakeholder system of Schumpeter (1934) is fundamentally a closed system, of internal participants such as banking, industry, government. This system is fundamentally ill-equipped towards major external forces, such as deregulation in global financial capital movements. The high growth rates, uncertainty of emerging business environments in much of Asia, further increased the unstable impact of such global capital movements. The reason why Asian business systems had originally adopted the more closed, stakeholder and system of financial capital allocated through banking also has to do with the nature of

uncertainty and change in the business environment of emerging economies such as in Asia.

Knowledge Allocation:

Knowledge has become an important topic of research in international business in the context of multinational enterprise and the transfer of knowledge across borders (Kogut and Zander 1993, 1995; Love 1995; McFetridge 1995). This past research has tended to define knowledge generically and to focus on the issue of how markets and organizations differ in their capabilities of transferring knowledge. Thus, the comparisons of markets versus organizations has been in a “developed” country context, such as the situation that would face a North American multinational enterprise transferring knowledge across borders through its subsidiaries. Thus, the major questions of knowledge, multinational enterprise, efficient markets may change substantially in an emerging market context, such as in Eastern Europe or in parts of Asia (Choi 1994). For example, the definition of knowledge in North American multinational enterprises may be defined as closer to research and development and original innovation; however, in an emerging economy context, knowledge’s value may be in the context of technology licensing, or in the context of establishing institutions to protect intellectual property rights to knowledge.

There are two major issues concerning knowledge in the context of this chapter on Asian economic success and crisis. First, although there is a general interest in knowledge as a resource, there is a substantial gap in definitions between international business research and related areas of economics research. However, there is clear overlap in disciplines over some of the major issues including

multinational enterprise, global markets, knowledge transfer, public goods just as a substantial part of international business research has relied on an international economics methodology (Buckley and Casson 1998; Dunning 1996). We believe this gap has existed because although international business research has followed a relatively broad and interdisciplinary agenda within business and management research, international economics research has followed a more narrow agenda of trade theory and exchange rates. In order to analyse knowledge as resources, there is thus a need to address the areas of diversion and overlap, but to consider whether other areas of economics research also have value in international business research. One area that especially warrants attention is the more recent research in economic development, which differentiates between knowledge about technology versus knowledge about quality and attributes of goods and services, which face more general problems of imperfect information (Dasgupta 1994; Bowles and Gintis 1996; Knack and Keefer 1997; Levine 1997; Choi 1994; Stiglitz 1996).

Second, international business research on knowledge has tended to analyse the specific situation of developed countries. For example, a typical starting point of analysis would be a North American multinational enterprise facing the issue of knowledge transfer through markets versus through its own subsidiaries (Kogut and Zander 1993, 1995; Love 1995; McFetridge 1995) in a developed country business environment with relatively perfect information, effective institutions and intellectual property rights. The majority of business environments however are in a developing or emerging economy context, with imperfect information, institutions in transition and lack of intellectual property rights. The value of knowledge in such an emerging economy context may be very different for multinational enterprises as well as for the

overall economy and society. For example, the value of knowledge may be contained in the context of technology licensing, or in the development of certification agencies standardising quality and attributes of goods and services (Lall 1992, 1995; Mody and Yilmaz 1997; Wade 1990; Amsden 1989; Westphal 1997).

Knowledge and the Asian Crisis:

There are three aspects of knowledge which are relevant in terms of the Asian economic success and crisis: acquisition, dissemination and delivery (Stiglitz 1994). Acquisition includes domestic creation as well as acquisition from foreign sources. Dissemination includes rapid diffusion within the domestic national business systems. Delivery is linked to the technological systems that allow effective delivery such as the internet, telecommunications systems. These distinctions are shown in the figure below.

<i>Knowledge acquisition</i>	<i>Knowledge dissemination</i>	<i>Knowledge delivery</i>
Acquisition primarily is from foreign sources or created domestically. Asian business systems primarily acquired their knowledge from the United States and Western Europe through technology licensing, with inadequate efforts towards domestic creativity (Amsden 1989) and knowledge creation.	Effective dissemination or diffusion of knowledge is dependent on absorptive capacities (Cohen & Levinthal 1990). The speed of such knowledge exchange and diffusion (Choi & Lee 1997) is dependent on tacit, trust based exchange, which is more common in collective societies such as in Asia.	The effectiveness of knowledge delivery to organizations, institutions in the national business system is dependent primarily on infrastructure such as telecommunications and IT systems. Asian economies adopted successfully such delivery systems primarily from the United States.

Table 3.1: National knowledge - acquisition, dissemination, delivery

Traditionally, the relative strengths of the Asian national business systems (Choi et al. 1996; Whitley 1994) has been in the areas of dissemination and delivery; acquisition has been fundamentally borrowing from foreign sources through technology licensing (Amsden 1989). The collective nature of Asian culture has allowed the rapid dissemination of knowledge acquired from the United States and Western Europe through trust based networks and exchange (Choi et al. 1996). The fundamental problem that had been arising even before the start of the 1997 Asian economic crisis was the problem of “creativity” or the need for domestic creation of knowledge, rather than dependence on foreign sources (Amsden 1989; Wade 1990). This increasingly became a problem when the United States and Western Europe increasingly became knowledge based in their economies, developing industries from computer software, to biotechnology, to media and entertainment.

The key difference of these knowledge based industries is their, “intangibility” in terms of quality attributes and success factors. The importance of intangibility of knowledge goes back at least as far as Polyani (1944), who differentiated between the informal, tacit aspects of knowledge versus the formal, explicit, codifiable aspects of information (Nelson and Winter 1982). When economies become relatively more dependent on knowledge based industries, there is a shift in importance in the three aspects of knowledge: acquisition, dissemination, delivery. Acquisition, especially domestic creation becomes crucial to success. The Asian economic systems had learned only about the dissemination and delivery of tangible, manufacturing industries and product attributes. The greater importance of intangibles and invisible assets (Itami & Roehl 1987), including the value of financial assets and capital movements were fundamentally new to the Asian business systems.

SECTION 3.2: ASIA: OVERCOMING PSYCHIC DISTANCE

While the Asian economic crisis beginning in 1997 has raised fundamental questions and debates about the fundamentals of the Asian business system, for a lot of international investors this crisis is an opportunity to make investments in the region. But the negotiations needed to exploit these opportunities in Asia require a fundamental understanding of the national business system (North 1990; Simon 1991; Kogut 1991). In this section we analyze the “pre-negotiations” factors necessary to overcome psychic distance (Johanson & Vahlne 1977; O’Grady & Lane 1996) towards Asia. The fundamentals of rational, negotiation analysis, especially in an international setting with multiple actors, were formulated by the works of Schelling (1960), Luce & Raiffa (1957) and Raiffa (1982). Since this pioneering research, the more general nature of co-operation, collaboration and conflict in the international business environment has begun to develop as an important area of research throughout the 1990’s. Recent works such as Parkhe (1991), Inkpen & Beamish (1997) have begun to address the importance of negotiation and bargaining in the success of international joint ventures. A substantial amount of social science research that has been carried out in the last few decades, and the frameworks that have been developed have been unprepared for the major turbulence, change in today’s international business environment; for example, one of the most dramatic recent issues has been the economic and business crisis in Asia since 1997. In this sense, it is an opportune time for further research on negotiations, especially the governmental and institutional factors for success in today’s international business environment. Such research must also address the issue of “psychic distance” towards the Asian business environment (O’Grady & Lane 1997; Andersen 1992;

Benito & Gripsrud 1992; Peng & Heath 1996; Kogut & Singh 1988), or the socio-cultural distance that companies and countries feel towards countries they consider to be dissimilar from their own business systems.

Existing research in negotiations, especially from an international business perspective, does not take into account fully the different nature of costs in emerging economy business environments; recent exceptions include Inkpen and Beamish (1997). However, most of Asia, including countries such as Indonesia, Thailand, Malaysia, Vietnam, China are all emerging, rather than mature business environments; globalization has further complicated the nature of such emergence (Rodrik 1997; Hirschman 1994; Putnam 1996). The importance of such different costs, whether they be monitoring or enforcement costs in negotiations and exchange can be seen in the ongoing research and debate on transaction costs (Hirsch & Lounsbury 1996; Choi, 1994), although the majority of the past research has been in mature, single country contexts. For example, the academic debate on the relevance of transaction costs for market and nonmarket based exchange has continued in various works as Williamson (1996); Hill (1995); Nooteboom (1996); Ghoshal and Moran (1996); Granovetter (1985); Parkhe (1991); Simon (1991), with the conclusion that both market and nonmarket based exchange within organizations are crucial for the success of any business environment.

As discussed by North (1990, 1991) and Olson (1992), institutions have been developed by societies to create order and reduce uncertainty in exchange and cooperation; in Asia's emerging economies, such institutions have not been fully developed, magnifying the level of uncertainty. In game theoretic terms, negotiations, which requires co-operation can be difficult when the game is not repeated, when

information about the other actors is limited, and when there are large number of actors involved in the potential exchange (North, 1991). Such factors characterize negotiations and co-operation in emerging market business environments. Research in international business has also shown that companies tend to begin their internationalisation process, and even their continuing business exchange in countries that are, psychically close (Andersen 1992; Johanson & Vahlne 1977; Benito & Gripsrud 1992; Kogut & Singh 1988; O'Grady & Lane 1997). Such research on psychic distance showed that psychic distance comprised of cultural (Hofstede 1980) as well as structural differences, such as legal and administrative systems (Johanson & Vahlne 1977). We believe that such structural, legal, administrative systems differences have not been sufficiently researched in international business as key factors in negotiation and exchange, and especially in the context of the Asian business environment.

The purpose of this section is to further develop a framework for overcoming such, psychic distance towards Asia, in order to create the “pre-negotiation” fundamentals in terms of beliefs, perceptions, images, values. Such pre-negotiation psychic distance needs to be overcome in order to proceed to successful international negotiations (O'Grady & Lane 1997; Kogut & Singh 1988; Gatignon & Anderson 1988). Rather than focusing on the well researched area of national, culture (Hofstede 1980), our purpose is to focus on the more general national business systems (Kogut 1991; Whitley 1992; North 1990; Olson 1992) with a focus on the implications for pre-negotiations. Our analysis takes into account the various political, sociological, legal, anthropological, organisational and economic aspects that help to comprise a business system (Kogut 1991; Etzioni 1988; Brouthers & Bamossy 1997; Thurow

1992; Boddewyn 1988; Lenway & Murtha 1994; Murtha & Lenway 1994; Choi, et, al. 1996; Geringer & Hebert 1989; Choi & Lee 1997). Most of the research on international bargaining and negotiations has shown that over time, co-operative relationships are terminated for the inverse reasons for which they were formed; thus when the possession or control of certain resources is reduced, the nature of the co-operative relationship is also weakened (Beamish & Inkpen 1997; Young & Olk 1994; Sohn 1994; Parkhe 1991). We believe that differences in national business systems, are a permanent underlying and fundamental factor in the nature of international negotiations and thus play a much more important role in the long term success of such international relationships.

We focus on the importance of taking into account the nature of emergence in Asian economies, and how this differs from the mature economy situation, which dominates the studies in international business; exceptions include Beamish (1988); Inkpen & Beamish (1997); Landa (1994); Olson (1992). Emerging economies face a much higher level of uncertainty, change, requiring additional factors in analysis, relative to mature economies. Under uncertainty, the traditional advantage of pure markets, the power to co-ordinate exchange partners becomes considerably weakened (Simon 1991). The emergence factor is thus a major driver of psychic distance towards Asia.

Asian Negotiations : Emergence

To overcome the psychic distance, it is imperative that all parties take into account the dynamic nature of emergence and its influence on pre-negotiation psychic distance (O'Grady & Lane, 1996; Johanson & Vahlne 1977; Kogut & Singh 1988) in

the context of the Asian business environment. The concept of trust is often used to describe Asia, especially in terms of the difference to more market based exchange and co-operation (Fruin 1992; Gerlach & Lincoln 1992; Hill 1995). Past work in this area has contrasted Japan and the United States. In Japan, the organisation-oriented system is seen as owned by the entire community and therefore trustworthy while the market-oriented Anglo-Saxon system countries such as the United States, has the self-interests of individuals, rather than groups as its principle focus of interest. This distinction has been made in works international business and other social science works such as Fruin (1992); Choi & Lee (1997); Parkhe (1991); Granovetter (1985); Hirschman (1994); Putnam (1996).

In terms of international negotiations in Asia, we believe that one aspect that both types of definitions and reasoning of trust versus market based exchanged share is insufficient emphasis on the importance of measurement (North 1990; Simon, 1991). This becomes especially important in an international business setting, where there are various different standards and definitions of value in exchange. In general, the emerging market situation of Asia also makes uncertainty and measurement and enforcement problems (Choi & Lee 1997) crucial for any type of negotiations. Although the role of measurement costs distinguishes the approaches of Williamson (1985) versus North (1990), there is a scarcity of research on the importance of measurement costs (Hirsch & Lounsbury 1996); exceptions include Barzel (1982); Choi, et al. (1996); Bernstein (1992). In any type of exchange, the attributes of the product or service being exchanged needs to be measured. Brand names, warranties, objective third party experts all play a role in reducing the costs and temptations to incur measurement costs in exchange. Barzel (1982) has shown that if such

guarantees exist, then exchange partners in choosing products or services over time, may be satisfied with the, average level. This in turn, saves the partners the transaction costs, in this case the measurement costs of measuring the value of the product or service every time they make a co-operative exchange.

It is in the interests of both exchange partners, even with different national or other types of cultural backgrounds, not to measure the exact value of what is being exchanged at every transaction, since this would unnecessarily raise the transaction costs of negotiation and exchange in the relationship. In terms of negotiation analysis (Schelling 1960; Raiffa 1982), this is related to the concept of, focal points, in that the negotiating parties may be able to implicitly, or informally agree on key criteria without necessarily analysing in depth the value to both negotiating parties. In turn, as Barzel (1982) has discussed, each party may still have the temptation to try and incur the unnecessary measurement procedures, which in turn leads to higher costs for both parties. This temptation can be reduced by actually maintaining or increasing the measurement costs of the exchange, and thus increasing the asymmetry between the transacting parties.

The two extremes of achieving exchange and co-operation through either trust or contracts does not address the situation of emerging market business environments whether neither enforcement mechanism for exchange are possible; this is further magnified by the difficulties of measurement costs for many of the complex products and services being exchange in today's business environment (Barzel 1982; Choi & Lee 1997). Regions of the world such as Eastern Europe, certain parts of Asia, Latin America, Africa all provide environments where neither contracts nor trust type enforcement mechanisms may be effective. An alternative to either may be similar to

what Schelling, as early as 1960, described as the tendency for parties to mutually exchange a hostage in order to ensure co-operation and enforcement of agreements in environments with highly problematic outcomes:

"...the ancients exchanged hostages, drank wine from the same glass to demonstrate the absence of poison, met in public places to inhibit the massacre of one by the other, and even deliberately exchanged spies to facilitate transmittal of authentic information....in a lawless world that provides no recourse to damage suits for breach of unwritten contracts, hostages may be the only device for partners to strike a bargain."
(Schelling 1960)

Schelling's (1960) classic frameworks of negotiations under uncertainty, are highly applicable to the emerging business system situation of Asia today. This mutual commitment style approach to negotiations and exchange, overcomes the weaknesses of implicit trust, reputation or ethics as guarantors in exchange in very uncertain and unpredictable environments. It does this by creating a situation where both parties must lose if they do not co-operate.

Negotiations and uncertainty

The research on international negotiations, bargaining and co-operative relationships such as Parkhe (1993); Madhok (1995); Inkpen & Beamish (1997); Beamish (1988) have shown that the uncertainty of whether the other party will fulfil obligations, commitments and expectations is a major issue in international business environments. In the international business setting, especially under the high uncertainty of emerging markets, the difficulty is in identifying the other party, in addition to measuring the content or value of the product or service being exchanged. Even under the situation where the value has been ascertained by both parties to the negotiation, the problem is one of mutual interpretations, informational constraints,

communication distortion or similar to the communication and co-ordination costs analysed by Schelling (1960); Raiffa (1982). Pre-negotiation psychic distance (O'Grady & Lane 1996) can further complicate such potential negotiations and agreements.

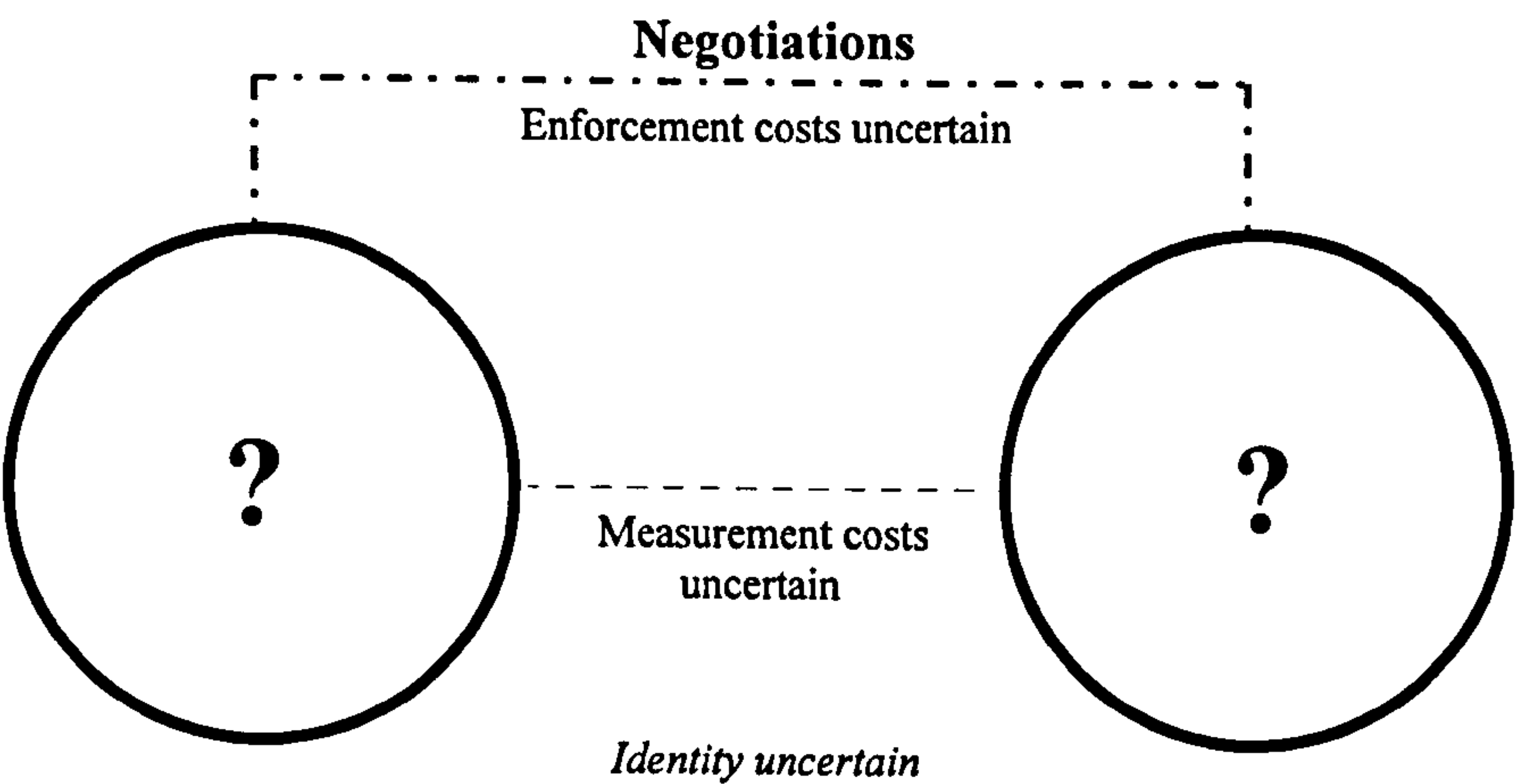
In the case of emerging markets business environments, the issue combines both the problems of identification and of assessing the value and tangibility of the product or service being exchanged. Once the identity of the two parties has been made, this will help to determine the way value is ascertained, and how over time, the gains will be distributed to both parties, or bargained as analysed by Schelling (1960, 1966), Raiffa (1982), Inkpen and Beamish (1997). Under such circumstances, the identity helps determine the boundaries of the firm or organisation's behaviours, attitudes to opportunism and lowers communication and co-ordination costs. Such identification requires various types of shared non market transactions, such as social relationships, trust (Simon 1991; Granovetter 1985; Choi & Lee 1997) and other co-operative mechanisms. Identity itself may also be determined by external, third party intermediaries, or by other parties in one's social network or community (Kogut & Zander 1996).

But this identity is not always easily known; and the measurement and enforcement costs of exchange also can be prohibitively high in emerging market business environments.

Proposition 1: Identification in the market can be especially important in emerging markets because of uncertainty, and the difficulties of measuring the value and content of the product or service being provided in the market.

The issue of, "identity" in turn needs to be analysed together with measurement and enforcement costs in order to better understand the nature of exchange in the emerging

Asian business environment. In our analysis, our key distinction is on whether the partners to a transaction can be identified as having shared or unshared values or identities. Thus, in an extreme case of a closely knit clan (Boisot & Child 1988) type transaction, it is expected that the identities will be closely shared. Another way to categorise this would be in terms of homogeneous versus heterogeneous beliefs or ideologies, again leading to shared or not shared identities. This may require a “mutual commitment” (Schelling 1960) from both parties or actors in the exchange in order to overcome such overall uncertainty in the business environment. This is shown in the figure below:



Source: Adapted from Choi, Lee & Kim, JIBS forthcoming

Figure 3.3: Negotiations under uncertainty in emerging markets

The uncertainty of whether measurement and enforcement costs are high or low, and the uncertainty of the identity of the transacting partner all add to the difficulties of co-operating in such situations. However, they help to illustrate the realities of exchange in many emerging business systems of the world such as Eastern Europe, parts of Asia, Latin America where there is high information uncertainty and in the business environment.

Proposition 2: The strength of a mutual commitment framework is that it allows negotiation and exchange in an emerging market situation, whether there otherwise would be no co-operation.

Paradoxically, in terms of long term, trust based exchange, the measurement costs need to be high. In this sense, if the exchange actually occurs when there are high measurement and enforcement costs, then it could actually be advantageous in developing long term trust. The contract exchange which depends on low measurement and enforcement costs, does not help to establish long term trust.

Proposition 3: The development of long term trust may require a negotiation and exchange situation where measurement and enforcement costs are potentially high. If co-operation can occur under such circumstances, this can in turn help to develop long term trust.

In more general terms, what reduces the incentives for an exchange partner to try and measure the value of the product, service that is being exchanged or transferred? The asymmetry is that the party A, providing the product or service has more information, knowledge than the party B, receiving it, an asymmetry of information. One way is to “increase” rather than decrease the asymmetry of information between party A and party B. This reduces the temptation for party B to identify and attempt to measure the value, which in turn is a cost to party B, and also a cost to the co-operative relationship between party A and party B.

Research in international business has shown that companies tend to begin their internationalisation process, and even their continuing business exchange in countries that are “psychically” close (Andersen 1992; Johanson & Vahlne 1977; Benito & Gripsrud 1992; Kogut & Singh 1988; O’Grady & Lane, 1997). Such research on psychic distance showed that psychic distance comprised of cultural (Hofstede 1980), as well as “structural differences”, such as legal and administrative

systems (Johanson & Vahlne 1977). Working in countries that are psychologically close helps to reduce uncertainty, and it may be easier for companies to operate under similar conditions as in their home markets. As this past research has shown, the paradox is that psychologically close countries are not necessarily the easiest to manage and succeed in, since the assumption of similarity can prevent companies from learning about crucial diversity in the international business environment (O'Grady & Lane 1997; Gatignon & Anderson 1988).

According to such psychic distance paradox in past research, most Asian countries are relatively distant for Western European and North American corporations. Japan, which has been the subject of most research on Asia, was one of the most psychologically distant countries from the United States perspective (O'Grady & Lane 1997; Kogut & Singh 1988). Other Asian countries, such as Korea, Thailand, Indonesia have been relatively less researched, but show an even greater psychic distance than Japan. Although research in international business on psychic distance has focused on market entry strategies of multinational corporations, the psychic distance towards Asia also applies in terms of international negotiations.

This section of the chapter has addressed the issue of overcoming psychic distance in order to create the most effective, "pre-negotiation" foundations towards Asia from two frameworks. Firstly, in analysing Asia, international business research needs to distinguish between shareholder and stakeholder value systems (Freeman 1984; Albert 1991; Hirschman 1994; Olson 1992), which have important implications for business and economic behaviour and performance measures. Secondly, we showed that "emergence", and stages of emergence needs to be analysed in more depth in order to understand the implications for negotiations, exchange and co-

operation in Asia. Past research has not distinguished between the influence of emergence factors, relative to the more widely researched business environment in, mature business systems and implications for a broad definition of negotiations. Asian countries such as Japan and Korea are stakeholder business systems. However, other Asian countries such as Hong Kong are very much shareholder business systems, with others such as Singapore being mixed between the two systems (Albert 1991; Whitley 1992, 1994; Choi, et. al, 1996; Fruin 1992; Gerlach & Lincoln 1992; Roe 1997). This fundamental difference needs to be taken into account in analysing negotiations, exchange and co-operation in the Asian business environment.

Conclusions:

In the first section of this chapter, we analyzed the Asian economic crisis through the role played by two major factors: “knowledge” and “financial capital” allocation. We believe that an interdisciplinary framework incorporating international business, international economics and economic development can help to provide a more systematic understanding of not only past Asian economic success, but the present Asian economic crisis. The fundamental issue is that the national business systems (North 1990; Olson 1992) in Asia were phenomenally success for decades and then dramatically problematic in 1997. There is a need to understand the factors for past success, and which of these factors, if any were responsible for the crisis which began in 1997. We developed a “double triad” framework, including international markets and domestic institutions to better incorporate Asia’s emerging economies into the global competition frameworks.

Within this framework we then analysed the two systems of capital allocation and ownership that have been proven widely successful in the mature economies of the world. These two major business systems can also be fundamentally divided into shareholder and stakeholder systems of capital allocation and ownership structures (Roe 1994; Hirschman 1994; Putnam 1996; Freeman 1984; Albert 1991). The Asian economic crisis was greatly due to the fact that in many of the more emerging countries of Asia including Thailand, Malaysia, Indonesia, neither systems of external nor internal financial capital allocation had been fully developed. Thus, the “level” of financial institutions in the national business system (Levine 1997; Demirguc-Kunt & Maksimovic 1996; Boyd & Smith 1996) is crucial to understanding the Asian crisis.

We focused on the importance of taking into account the nature of “knowledge” acquisition, diffusion and delivery in emerging economies. Despite the past economic success of emerging economies in Asia, Eastern Europe and Latin America, international business research has not sufficiently analysed how such emergence environments differ from the maturity business environment of North America and European Union; exceptions include Beamish (1988); Choi (1994); Inkpen & Beamish (1997); Landa (1994); Olson (1992). The balance among the three major parts of knowledge, acquisition, diffusion and delivery has changed. The strength of the collective, relationship and trust based national business systems in Asia were based on the “diffusion” and dissemination of externally created knowledge, usually from foreign countries such in North America and Western Europe. However, as the global business environment becomes increasingly dependent on creativity, R & D, technology, the so called, high-tech industrial milieu (Castells and Hall 1994), global competitiveness in knowledge resources has become

more dependent on acquisition and delivery, rather than diffusion. In this sense, the knowledge allocation mechanism in Asia, based primarily on past diffusion has become no longer appropriate in today's global business environment.

Although the Asian economic crisis has been widely debated and researched, the analysis has tended to be dominated by purely neoclassical economics thought (Krugman 1998). This however does not take into account the undeniable phenomenal economic success from the 1960's until 1997. The approach in this paper was to follow a broader, interdisciplinary approach including economic as well as international business and management frameworks. The "level" of emergence, of the financial institutions in Asia, and the ability to allocate or misallocate capital was a crucial factor in the crisis. Along with a greater global dependence on knowledge creation and knowledge based industries further added to the lack of maturity in Asian institutions. At least two issues warrant further research. First, there is a need to compare the Asian business systems that are presently in crisis, with those in less affected emerging business systems, such as in Eastern Europe, in order to compare and contrast the success and failure factors. Second, further empirical work and case studies on the nature of financial capital and knowledge creation and allocation in Asian business system is needed.

The purpose of section 3.2 was to analyse fundamental issues that influence pre-negotiation beliefs, values, assumptions held by international business negotiators in Asian context from two broader analytical frameworks: institutional (North 1990, 1991) and organizational (Schelling 1960, 1966). We feel that these two interconnected levels of analyses help to overcome the psychic distance (O'Grady &

Lane 1996; Sohn 1994; Johanson & Vahlne 1977) towards Asia in setting the foundations of successful international negotiations.

We analysed the question of whether the transactional aspects of negotiations could be the same in mature versus emerging market environments. In emerging business environments, the realities of uncertainty and high measurement and enforcement costs may require a mutual commitment (Schelling 1960, 1966) type approach to international negotiations. The strength of a mutual commitment framework is that it allows negotiation and exchange in an emerging market situation, whether there otherwise would be no co-operation. This fundamentally differentiates the Asian environment from more mature business environments, where there are much lower uncertainty, measurement and enforcement costs (North 1990, 1991).

INDIAN POLITICAL ECONOMY & FINANCIAL CAPITAL ALLOCATION

Introduction:

Over the past fifty years, India has been a puzzle for students of comparative democratic politics. Its success in maintaining democratic rule since independence in 1947, given the religious, cultural and linguistic differences of the large population, has confounded most political scientists. There seemed to be two puzzles posed by the Indian democracy; the first was its survival despite widespread poverty and illiteracy (Dahl, 1989), and the second was the puzzling contradiction between high level of political violence and the success in sustaining a democratic political system (Weiner, 1989). The democratic system seems to have survived the doomsday predictions of the leading statesmen like Churchill and Western social scientists (Mill 1958; Harrison, 1960). Nowadays, there has emerged of a third Indian puzzle; this time it is in the economic sphere and is increasingly attracting the attention of international business. After having moved at a snail's pace, referred to as the Hindu growth rate of 3-5%, India started emerging from the economic wilderness since the early nineties. Also, unlike the other countries in the region, India has emerged from the recent economic crisis largely unscathed. More importantly, it started making a significant impact on the world software industry - from 1990 to 1997, there has been no other country except India wherein the software exports have consistently grown at 50% annual growth rate. The significance of this is primarily in the context of the fact that India has consistently been at the bottom of league when most social indicators like education, health, poverty are measured. How did a impoverished country like India emerge as a an important player in an industry that is the beacon of the knowledge revolution in international business? Will the Indian economy, in line with the political system, astound the sceptics, or will it be a victim of its own contradictions?

The very size of the Indian economy, along with these puzzles and contradictions that makes India the focus of our analysis in this chapter. In it, using framework of the political embeddedness of the organisations and institutions which shape the business system (as explained in chapter 2) and the nature of allocation of financial capital in particular (as discussed in chapter 3), we analyse the domestic constraints that shape the Indian political economy. We then analyse the Indian financial capital allocation system and explore whether its' distinctive features were responsible for the country not being caught up in the recent regional economic crisis.

Indian Political Economy

Broadly speaking, the India's economic policies can be divided into four phases, with a shift in emphasis in each of those phases. In the first phase, which can called the Nehru era, the emphasis was on state monopoly capitalism (Bose 1990). The objectives were clear enough: to catch up with the industrialised world and to improve the living conditions of the people. But scarcity of capital was seen as the fundamental constraint on growth, low capacity to save limited the rate of capital accumulation, and even if savings could be raised there were structural constraints on transforming the savings into investment (Chakravarty 1987, Bettelheim 1968). It was believed that primacy of the market mechanism would lead to excess consumption by the rich and under-investment in sectors critical for development. At the same time it was assumed that unlike agriculture, industrialisation promised increasing returns and productive employment for surplus labour from the rural sector. The economic model with its emphasis on Soviet style industrialisation, dominated by the heavy industries in the public sector, import substitution, emphasis on the capital goods sector was influenced by a number of factors: the colonial legacy and the distrust of foreigners caused by it, the dominance of Fabian socialists in the bureaucracy and polity, and the inability of the private sector to invest in capital intensive projects. Thus the public sector was to dominate the commanding heights of the economy, thereby becoming

the mechanism to bring socialism, industrialisation, and modernisation to India's impoverished millions. Since the state was to play a major role in deciding economic policy and sectoral resource allocation, a plethora of controlling agencies were set up (Gough and Sharma 1973, Nayyar 1978). Arguably the bureaucratisation and politicisation of economic and industrial activities in this phase distorted the developmental model to such an extent that it became counterproductive and stifled growth. The compulsions of the electoral process meant that the state was effectively an alliance between the industrialist capitalist class, the land-owning class and the educated elite (Kothari 1970, Bardhan 1984, Rudolph 1987). This phase embedded a political economy in which the discourse would be influenced by the virus of socialism without the substance across the ideological spectrum of the polity.

The second phase (1966-1984) of India's economic development was dominated mainly by the realisation that economic reality did not conform to the expectations and promises. In addition, the process of development, especially the land reform legislation, had led to the emergence of a rich peasantry which began placing demands on the ruling political elite (Mitra 1977, Brass 1980, Vanaik 1990). The initial years of this period witnessed a shift in focus towards agriculture (which had been virtually ignored in the earlier phase) and some liberalisation measures which provided market incentives (Government of India, 1969: 239). Fertiliser production was opened to private sector and foreign investors. These measures provided the incentives and environment for the Green Revolution to set in. Following this, when Mrs. Gandhi, who dominated the politics in this period, found her power base being challenged, she nationalised all major banks, coal mining industry, and copper industry to assert the government's socialist credentials (Vanaik 1990, Nayyar 1991, Brass 1992).

The decade, from 1973-1984, was a period of mixed economic policies. On the one hand there were attempts at gradual liberalisation, with the role of the public sector being redefined as having to facilitate the growth of the private sector. Competition was seen as the means of forcing the nationalised industries to become

more competitive. To do this the government removed some of the price preferences that the public sector enjoyed. Also, the private sector was given easier access to credit. Despite these trends on the economic front, overall the political and bureaucratic control of industry became total, mainly in the form of permits, licenses, inspectors, and lobbies. In 1977, in the clearest sign of the hold of “economic nationalists” over the polity, multinationals IBM and Coca Cola withdrew from the Indian market.

It was in the 1980s, especially during the years of Rajiv Gandhi as Prime Minister, that the government began acknowledging that the public sector was unprofitable and that the economy was being stifled by controls. In an effort to ease government control over the economy, the process of liberalisation was formally institutionalised. The salient features of this were the gradual de-licensing of industries, easing imports and encouraging consumption of consumer goods, which, incidentally, had significant import content. On the one hand, this led to a surge in industrial activity and large-scale capacity creation commenced. However, its side effect was burgeoning imports without any corresponding increase in exports. The trade deficit was met predominantly by short-term sources of funds. The stagnation or decline in these sources precipitated a balance of payments (BOP) crisis in 1990-91.

India's BOP crisis, the main reason for the implementation of the radical reforms by the present government, had been building up slowly over the previous decade. The foreign trade deficit, which was of the order of Rs60bn per annum from 1980-81 to 1984-85, jumped to over Rs90bn per annum from 1985-86 to 1987-88 (i.e., the advent of the Rajiv Gandhi era of liberalisation) and peaked at over Rs125bn per annum during 1988-90. The BOP crisis arose mainly due to a crisis in confidence among short term lenders on whom India had come to rely heavily from 1987-88 onwards, and a currency squeeze preventing the repayment of liabilities that arise from one month to the next. Thus, from hindsight one can argue that the robust growth rate of 5.6% during the seventh Five Year Plan was achieved by mortgaging the country's future.

To tide over the crisis the Indian government approached the IMF in 1991. The IMF agreed to a rescue package on the condition that India carried out 'structural adjustments' to its economy. The Indian government formally adopted the New Economic Policy in July 1991, which incorporates three basic steps:

- 'stabilisation' of the economy;
- 'restructuring' of the economy;
- 'globalisation' of the Indian economy, focused mainly on export-led growth.

Economic Reforms:

The crisis that plagued the Indian economy reached its peak in the summer of 1991, when foreign currency reserves had plummeted to almost US\$ 1 billion, inflation soared to an annual rate of 17%, industrial production was falling and overall growth had declined to 1.1% in 1991-92. To overcome this crisis, the stabilisation, restructuring and globalisation of the economy began in July 1991.

Stabilisation of the economy:

To stabilise the economy, it was imperative that the deficit in the external BOP and the budgetary deficit be brought under control. As a first step, India devalued the rupee by 40% in 1991 as per the recommendations of the World Bank. Also sweeping reforms were made to the trade regime, and by 1993 the rupee was made convertible on the trade account. In addition, the lowering of the ceiling on the fiscal deficit in the annual budget was agreed to.

Restructuring of the economy:

In an effort to restructure the economy, sweeping reforms of India's industrial, fiscal, monetary and tariff policies were instituted. The reforms of the industrial policy included:

- gradual abolition of industrial licensing;
- reducing areas reserved exclusively for the public sector;
- relaxing the conditions of entry for large-scale export oriented units in sectors reserved for small-scale industries;

- amending restrictive policies in the area of trade practices and foreign exchange controls;
- capital market reforms, which amongst other things, facilitates the free flow of foreign capital to raise equity stakes to 51%.

Globalisation of the economy:

The structural inefficiencies inherited over the last four decades meant that its' competitive edge in the world markets was insignificant. Therefore, the globalisation of the Indian economy, which would pave the way for growth, will be a lengthy process and the intervening period will essentially be a fight for survival.

Analysis of the post-1991 reforms:

The reforms that began in 1991 clearly marks a watershed in the Indian economy, for since then there has been a fair degree of political consensus to move away from the state monopoly capitalist system. There was consensus on the key elements of the reform process on the following issues

- the Indian economy should not revert to the closed trade and foreign investment regime of the pre-reform period
- the bureaucratic policy framework had become dysfunctional and reforms were needed
- market forces should be encouraged provided the negative impact on income distribution is kept within politically manageable limits
- external and internal borrowings by the government should be moderated to avoid getting caught in the debt trap

Although there was a consensus about moving away from the past economic paradigm, there is an intense debate internally about the future direction of the reform process. The alternatives on offer are the pluralist neo-liberal economic framework rooted in the Washington consensus and advocated by the international financial institutions like the IMF and World Bank and the corporatist Asian model whose

success has been grudgingly approved by the World Bank (World Bank 1993). At the start of the reform process in 1991, the liberalisation process drew inspiration from the neo-liberal philosophy with its key propensities of anti-bureaucracy, anti-planning and macro-economic discipline. The implied message was that the government should concentrate on setting the rules of the game and generally distance itself from market processes. In the context of economic policy, this translated into the government abolishing industrial licensing in July 1991 in the Industrial Policy Statement so that “entrepreneurs make investment decisions on the basis of their own commercial judgement”. The government also decided to reduce the selective approach to foreign direct investment of the earlier policy, and permit a much wider domain of operation for foreign direct investment (Ahluwalia 1994). On the external front, the rupee was gradually made convertible on the capital account and there was a drastic reduction in quantitative controls, tariffs and subsidies.

But in 1998, when the nationalist Bharatiya Janata Party government set forth its’ economic policies, it essentially challenged the “minimalist state” ideology and advocated a more active role for the government. The government, in line with those in East Asia, was not to be a passive observer, but would consciously distort market incentives in pursuit of economic objectives. The reason the government chose to put forth a competing economic paradigm of policy making was the fact that there was an emerging consensus that the neo-liberal framework was not delivering on its promises. This was not surprising, as most astute observers had, early on in the process, rightly observed that the reform agenda focused almost exclusively on the economic aspects, and remained ambivalent on the institutional aspects of change that were needed. Most of the discussions of reforms, emanating from official sources, rarely went beyond scolding and cajoling state functionaries to implement the reforms (Bhagwati and Srinivasan, 1993). One of the key participants in the process stated that the government was besieged by pressure groups seeking to influence policy - there was a seething mass of communication aimed at the government from the press, parties, lobbies, industrial organisations, trade unions, public interest groups and other

busy bodies (Desai, 1993). Thus the lack of even a modicum of insulation needed to project an image of unbiased rule making was never present in the implementation of the neo-liberal reform process. Thus the political embeddedness of the various Indian institutions meant that there was bound to be an inherent inconsistency between the ideological appeal of a rule base rational neo-liberal economy and the ground realities of relational coalitions. This made the process vulnerable to lobbying pressures to change the rules of the game. This was especially true when the stakes were high when institutional loopholes would justify undermining the rule based ideology of reforms (Chandramohan et al, 1993).

The present Indian government presented its vision of the future direction of the reform process when it unveiled its annual budget in 1998 (Government of India 1998). The thrust of the budget was significantly different in two main areas - the advocacy of a internal looking nationalist economic framework and looser commitment to fiscal discipline and macro-fundamentals. The budget clearly sought to provide higher protection from external competition through its indirect tax proposals which would clearly dampen international capital flows by projecting a nationalist-autarkic image abroad. In addition it would introduce differential protection to different sub-sectors and economic groups. The significance of these changes lay in the heightened degree of politicisation of the budget process. The budget also sought to make a sharp distinction among external investors, with special treatment offered to non-resident Indian investors, together with a lukewarm approach to the international investor community. The attempt in the budget, in line with the East Asian corporatist model, was for the government to forge links between certain segments of the domestic industry and external non-resident Indian interest groups so as to insulate it, to a very large extent, from the pressures of free flowing international capital. There is an element of irony in this, as it is precisely these two groups that are to a very large extent responsible for the economic crisis; the domestic industry which was heavily protected helped ensure that most industries would remain technologically backward; the non-resident Indians precipitated the economic crisis

on the external front in 1991 by withdrawing the funds that they had invested in short term deposits in India.

Overview of the Indian Economy:

From a predominantly agrarian economy, with about 55% of GDP in 1950-51 coming from agriculture, India has done fairly well, achieving a compound annual growth (CAGR) in GDP of 4% in the past 40 years. This was largely due to sustained industrial and service sector growth, and in the process reduced dependence on agriculture. Therefore, in 1991-92, only 31% of GDP originated from the agriculture sector, with industry contributing 29% (against 16.1% in 1950-51) and services 40% (against 28.4% in 1950-51). During this period, agriculture grew at a CAGR of only 2.5%, while in contrast, industry grew by 5.5% and services by 4.8%. Some of this growth has been achieved because of the robust growth in the domestic savings rate, which is currently over 24% of the GDP - one of the highest in the world.

But the main pillars of on which the revival of Indian economic growth was founded since the budget of 1991, i.e., industrial production and exports have revealed their vulnerability. In addition, as indicated by the table below, both industrial and agricultural growth have slowed down considerably, and the fiscal deficit has risen.

<i>Year</i>	<i>Index of Industrial Production</i>	<i>Index of Agricultural Production</i>	<i>Exports (US Dollar Revenues)</i>	<i>Gross Fiscal Deficit (% of GDP)</i>
1990-91	8.2	3.8	9.2	8.3
1991-92	0.6	-2.0	-1.5	5.9
1992-93	2.3	4.1	3.8	5.7
1993-94	6.0	3.8	20.0	7.4
1994-95	9.3	5.0	18.4	6.0
1995-96	12.1	-2.7	20.7	5.4
1996-97	7.1	9.3	5.3	5.2
1997-98	4.2	-3.7	1.5	6.1

Source: Compiled from Government of India, Economic Survey 1997-98; Ministry of Finance, Monthly Economic Report May 1998; Reserve Bank of India, Annual Report 1997-98.

Table 4.1: Selected Indicators of India's Economic Performance

Further, as indicated by the table below, the foreign direct investment flows are down sharply.

<i>Year</i>	<i>Foreign Direct Investment (Million \$)</i>	<i>Portfolio Investment (Million \$)</i>
1990-91	93.4	7.1
1991-92	132.2	3.8
1992-93	237.8	182.0
1993-94	581.7	3645.3
1994-95	1266.9	3580.0
1995-96	1960.0	2736.6
1996-97	2528.3	3307.1
1997-98	3119.5	1790.4

Source: Compiled from Reserve Bank of India, Annual Report 1997-98

Table 4.2 : Foreign Capital Flows into India

External Sector:

India's inward looking policies since independence have led to a dismal performance on the export front given its focus on self sufficiency and import substitution. The trade model was defined by "export pessimism" (Bhagwati, 1993: 57) where it failed to use the exchange rate policy to encourage exports and introduced inflexible and pervasive controls which were an handicap to penetrate competitive foreign markets. So it is not surprising that India currently ranks 33rd in world exports and has a lowly 0.5% share of global exports. However, post-liberalisation, India's exports grew impressively at 19.5% in 1993-94 and the trend is expected to continue. The composition of India's exports has also undergone considerable changes over the decades Agro-commodities, such as tea and cotton, and textiles constituted over 75% of exports until the early 1960s, and now account for 35% of exports. Impressive progress has been made in exports of engineering goods,

garments, gems, and jewellery, leather goods, and marine products. The main destinations for these exports are the European Community (34.4%), U.S. (18.8%), Japan (7.7%).

India currently ranks 29th in imports world-wide, with an insignificant 0.6% share of total world imports. Some imports are unavoidable, largely due to crude oil and petroleum products deficiency within the country. In 1993-94, India's imports grew by 6% but imports are expected to go up as the economy opens up.

Barring two years of negligible surpluses, India's trade balance has consistently been negative and the position was aggravated in the 1980s by a growth policy which allowed liberal imports without really promoting exports. In 1998 the estimated trade deficit was U.S.\$ 9 bn.

External Debt:

The perennial trade deficit and the need to import capital goods and raw materials necessary for development has forced India to increase its borrowing. The foreign debt has burgeoned since the 1980s, and has reached a staggering level of US\$ 73 billion at the end of 1993. The fact that most of this debt is in the form of medium to short term, high interest bearing, commercial loans is disturbing and attempts are being made to retire these, using the forex reserves that the country has managed to attract in the recent past.

Forex Reserves:

India's forex reserves which were never healthy due to negative balance of payments position, dipped to precarious levels during the crisis of 1991, when it fell to about US\$ 1bn. Thereafter, the situation improved because of borrowing from the IMF, devaluation of the rupee, and foreign investment in India. The reserves had risen up to US\$ 25 bn in 1998.

Currency:

Although the Indian rupee was pegged to a basket of currencies and was supposed to move in tandem with these currencies and the countries purchasing power, the rupee was consistently maintained at a higher level than the BOP situation warranted. This led to a proliferation of illegal forex deals and the flight of capital from India. To counter this, the rupee was periodically devalued. Since the devaluation of 1991, the rupee has been relatively stable, and the removal of most of the controls on the forex transactions has meant that the market is the key factor in determining the rupee's value.

Fiscal Operations:

The government is the largest spender (about 20% of GDP) in the Indian economy. The central government consumes two-thirds of the budgetary expenditure and transfers one-third to the state governments and union territories. On the receipts side, the revenue only accounts for 56% whereas the government's revenue expenditure is over 71% implying a deficit by both the central and state governments, which averages about 2% of the GDP. The gross fiscal deficit accounted for an average 7% of GDP in the last 15 years, but lately there has been an effort to limit it to about 6%. The three major components of the governments revenue expenditure are interest payments on government borrowings, subsidies, and defence expenditure.

Indian Industrial Sector:

Other than a liberalising economy, India has some unique features which are attractive to international investors. A pluralistic democracy for most of its post-independence era, India is governed by an English speaking elite, based on an Anglo-Saxon legal system. In addition, since it has always had a vibrant, albeit small, private

sector run by veteran entrepreneurs, and a well established capital market with 23 stock markets which have about 7000 companies listed. In addition, there is an adequate financial and banking system, and adequate protection of industrial property rights. Thus India has most of the structures and systems needed to transform itself in place, and has to focus on boosting the efficiency in its current economic structures. In terms of business practices, probably the single greatest weakness plaguing the country is the degree of corruption. The problem is grave simply because of the fact that it affects all layers of society and seems to be the one of the defining characteristic of the political economy.

After independence in 1947, India embraced a mixed economy, with the public sector dominating what were perceived as being the sectors that were important in the national interests, and the private sector operating in a small cocoon behind walls of protection and captive markets. As Bhagwati (1993:50) has so eloquently stated:

“The Indian planners and regulators sought to regulate both domestic entry and import competition, to eliminate product diversification beyond what was licensed, to penalize unauthorized expansion of capacity, to allocate and prevent the reallocation of imported inputs, and prevent the reallocation of imported inputs, and indeed to define and delineate virtually all aspect of investment and production through a maze of Kafkaesque controls. This all-encompassing bureaucratic intrusiveness and omnipotence has no rationale in economic or social logic, it is therefore hard for any one who is not a victim of it even to begin to understand what it means.”

The Public Sector:

The Indian public sector, which is truly substantial, has always been considered to be an important sector to cultivate and enlarge. The public sector was not confined to utilities or infrastructure; the idea was to have a gradual take over by the public sector of the manufacturing sector as well. In turn, the two Industrial Policy

Resolutions of 1948 and 1956 shifted an number of industries to the exclusive domain of the public sector. Included in this were not merely defence related industries, but also atomic energy, iron and steel, heavy machinery, coal, railways and airlines, telecommunications, and the generation and distribution of electricity.

Instead of providing revenue and efficiency to the economy, the public sector soaked up subsidies. With three-quarters of the country's industrial assets, the public sector contributes only to one-third of the industrial output (Thakur 1993). By 1991-92, there were 237 public sector enterprises with total investment of Rs 1470 bn. In theory, these enterprises makes a 2% return on capital, but in practice, according to Y. Venugopal Reddy, economic adviser to the commerce ministry, this is an overstatement (Economist 1995:20). This is primarily because the returns are heavily weighted by the profits of the petroleum enterprises, and even this meagre profit was ephemeral, based on historical-cost depreciation: corrected for replacement cost, the profits in public-sector enterprises in coal, steel, fertiliser, power, and transport were even estimated to be negative.¹ There were also other costs involved in sustaining an inefficient public sector. The public sector is monopolises the infrastructure sector, and as pointed out by Jagdish Bhagwati any "inefficiency there multiplies everywhere else and that has become a big albatross" (Tyagi, 1994: 16).

As a part of the reforms that began in 1991, it was decided to offer up to 20% of government holdings in selected public enterprises to mutual funds, financial investment institutions, workers and the general public to raise funds , encourage wider public participation and provide greater accountability. As a part of this policy,

¹ For an excellent account see B.R. Nayyar, "The Public Sector in India: The Dialectics of Legitimation and Rent Seeking," in L. Gordon and P. Oldenberg (eds.), *India Briefing 1992*, The Asia Society (Boulder, Col.: Westveiw Press, 1992).

the government selected 32 public enterprises with a good track record and offered a portion of their equity for sale.. For reasons that are partly ideological, and partly to do with the influence of the trade unions, the government has not yet bitten the bullet on disinvestment of 51% in the public sector. The present policy of selling small tranches has come in for strong criticism even within the bureaucracy. As a government document, quoted in the Economist (1995: 20) states:

Partial disinvestment of equity in the public sector enterprises fails to address the efficiency problem....it has no impact on ownership, control and management....it has been used more as a fiscal tool in order to raise cash to finance the government deficit, rather than to improve the efficiency of enterprise operations....There is also the danger that such an approach can be a temptation to privatise badly and to postpone the more difficult but much-needed longer term fiscal reforms.

So far only in one enterprise does the extent of divestiture exceed 40 per cent of the government’s equity. At least in half the number of enterprises the divestiture works out to be less than 10 per cent. Most of the divested companies, with some minor exceptions, have been the most profitable companies that have contributed about 85 percent of the total dividend to the exchequer in last three years. The government has not, as seen in the table below, made much progress in actually closing down a single public sector enterprise. Other than the legal issues involved, one of the main reasons for the lack of progress has been the absence of a credible social safety net.

Status	Number of PSEs
Recommended for winding up	5
Winding up notices served on	5
Revival package approved	8
Stay of proceedings by the High court	2
Cases under inquiry	23
Total	53

Source: Mohan (1996), p. 78

Table 4.3: Current status of sick PSEs

The area where some progress has been achieved in terms of reform is the competition policies, where the number of industries that were exclusively reserved for the public sector has been progressively reduced to 5 from 18. As of now the only industries where the public sector has a monopoly are defence production, atomic energy, mineral oils, railway transport and radioactive materials. The government has also tried to introduce performance measures for the sector through Memorandum of Understandings which spells the respective roles of the government and the public sector to improve performance. Although the system has been in existence since 1988-89 and has progressively covered nearly 40 per cent of the sector, there are no credible sanctions against the management if they fail to meet their commitments (Chopra, Atal et al 1995:64). There is also a clear conflict of interest in an administrative machinery rating and supervising public enterprises that fall under their jurisdiction. For example, in 1993-94, 75 per cent of the evaluated enterprises were rated as “excellent” or “very good” and only 10 per cent were rated “fair” although most of them were loss making enterprises.

The Private Sector:

In contrast to the “prescriptive” economic regimes of the East Asian countries where the government seeks to point the economy in a certain direction and then leaves the economic space open for the private sector to thrive in, India has a “proscriptive” economic regime (Bhagwati, 1988). In such a regime government officials were given the power to refuse permission for most private initiatives. This effectively created quasi-monopoly rents for those few who managed to get licences or import quotas, and a self-sustaining system of privileges and rents came into being.

While oligopolies were flourishing in various sectors like automobiles (with about 80-100% market share), the government, rather ironically, was trying to prevent concentration of economic power, by licensing the creation and expansion of capacity. This is best exemplified by the Industries Development and Regulation Act of 1951 which in an effort to check the large-scale or organised sector, promoted the small-

scale sector. The other rationale for promoting small scale firms was to boost employment, since these industries employ more workers per unit of output and capital. The effect was to “proscribe the expansion of small firms, discourage economies of scale and encourage high-cost production; the result was that India ended up with inefficient small companies and monopolistic large ones....The lack of a coherent bankruptcy policy (known as ‘exit’ policy in India) completed the tale of woes.”(Thakur 1993). In an excellent analysis of India’s textile sector, Dipak Mazumdar has shown how the industrial policy has handicapped India’s textile industry, by preventing firms from diversifying into synthetic fibres adequately for the sake of protecting the small scale producers of cotton textiles (Mazumdar 1991).

Having been nurtured in such a protected environment and captive home market, the Indian private businesses are “blinking in the sunlight”(Economist 1994) ushered in by the radical reforms. There are mood swings between extreme exuberance about the opening up, and a feeling of unease about facing up to foreign competition. The first is reflected in the business confidence index shooting up during 1994 in the wake of the explosive rise in corporate profits of 102%. The output of the capital goods industry, which was the first to go into recession, was 18% up on the same period in 1993. These results were effectively a result of specific policy changes. Import duties which reached 300% in 1991, were down to 65% in 1994, and projected to go down to 25% in 1998. Capital gains tax has been cut from 40% to 30% and corporate taxes reduced from 50% to 40%. Additionally, there has been a huge flow of capital into the stockmarket - market capitalisation grew from 1,110 billion rupees in 1990-91 to 3,980 billion in 1993-94, which has given the companies a lot of investable cash.

To counterbalance this euphoria, a number of the older oligopolies are feeling threatened disappearance of their captive markets. Arguing that the new environment is demanding a new range of skills, the management consultant Mrityunjay Athreya says that “in the past, when companies were making plans, the first thing they looked at was the statute book. Now they have to look at the market.”(Economist 1995).

These companies are having to restructure their organisations, typically cutting their hierarchies from nine levels to four or five, and try and increase efficiency. The latest management techniques, ranging from just-in-time, kaizen, business process reengineering, and total quality management are being adopted. In trying to concentrate on their core competence, the older firms are selling off some of their subsidiaries. For example, the old business house of Tatas, whose strength lies in the engineering sector, sold off its soaps and toiletries divisions to Hindustan Lever.

In addition to such restructuring, some of the older firms are pressurising the government to help them protect their family empire. They are against the government opening up sectors to imports in which their firms will lose their captive markets, like the consumer goods sector. The “Bombay Club” as this group of industrialists are referred to, has been successful in persuading the government to give industry tax breaks, and stop foreign investors from taking over their family-controlled public companies, essentially with the help of the huge nationalised financial institutions which have controlling stake in most of these companies. At the same time, these firms have not shied away from teaming up with foreign firms, especially in competitive sectors like consumer electronics and huge infrastructure projects.

A significant feature of the large private sector firms is the influence of the financial institutions that have investments in these firms. Most of these financial institutions are in the nationalised sector. Since they were the primary source of large funds till very recently, the firms were forced to turn to them for capital investments. In the context of the political economy, the nexus between the industrial lobby, the political elite and the bureaucracy became firmly entrenched. As a result of this, the large nationalised financial institutions have a controlling stake in most of the large private sector firms. To a very large extent these institutions have avoided the misuse of their power and remained “silent partners.” But as the recent case of the role of the financial institutions in the power struggle between BAT Inc., (U.K) and the Indian management highlighted, these institutions are not averse to playing a critical role, especially when they believe it is in the interest of the firm and/or the nation.

Indian Capital Market:

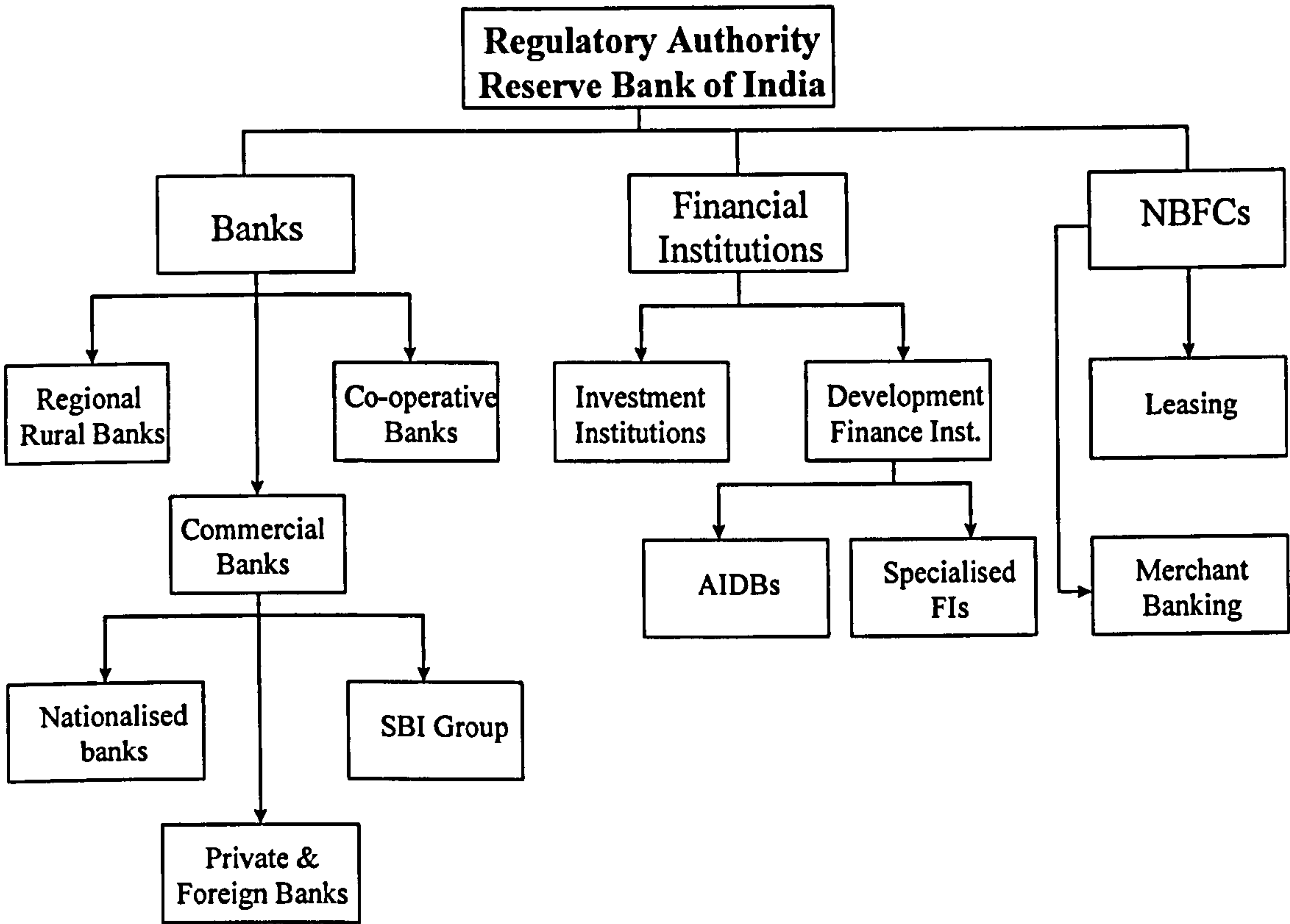


Figure 4.1: Indian Financial System

The Indian financial sector is characterised by the predominance of public sector institutions, which, till the early nineties, were motivated by socio-economic considerations. The banking sector is a prime example in which the so-called social banking, coupled with political interference, has vitiated the profitability of the banking sector. Over the years, the government increasingly relied on the RBI to finance its borrowing. The RBI in turn asked the commercial banks to maintain a large proportion of their Demand and Time liabilities as reserves which reduced banks' yield on capital employed. Another reason for the poor performance of banks is the priority sector lending scheme wherein almost 40% of the total credit has been advanced to sectors like agriculture and small-scale industry from where recoveries are very poor.

Financial institutions also suffer from poor asset quality. Under the License Raj, once a license was granted by the government, institutional finance had to be provided regardless of project viability. Moreover, the government's concern for employee protection forced financial institutions to continue to lend to ailing companies. In addition, the insurance industry is completely government-controlled. With a view to deregulating the financial sector, the government instituted the Narasimhan Committee to recommend changes in the existing structure. On the basis of the recommendations, the government has over a period of time reduced the Statutory Liquidity Ratio (SLR) from 38% to 25%, allowed the nationalised banks to tap the capital market and directed banks and other financial institutions to achieve capital adequacy ratio of 8% of risk weighted assets by March 1996.

The Development Financial Institutions (DFIs) have played an important role in the progress made by Indian industry. The integrated structure of these institutions comprises 9 institutions, of which 5 are All India Development Banks and four are specialised finance institutions. The bulk of term lending for project finance is undertaken by the Development Banks. Two of the specialised institutions, are involved in risk capital and technology development financing, the third provides shipping credit, and the fourth provides finance for hotels and tourism related projects. The DFIs have been instrumental in the development of Indian industry by providing term finance by underwriting and direct subscription to equity and debentures. In the past, the Development Banks have had access to cheap funds by issuing Government guaranteed SLR bonds which carry low coupons compared to market rates. The downside, however, was that they were forced to lend irrespective of project viability. The minimum lending rate for the DFIs is fixed by the RBI. The DFIs also provide

assistance through leasing asset credit. By 1992, all subsidised funding to the Development Banks had stopped, forcing them to become more market oriented in sourcing funds and lending them out. Most of the DFIs have diversified into non-fund financial services such as merchant banking and capital market operations.

Even though the autonomy of these financial institutions has increased in the last few years, they still have the government as their majority equity holder and thus have to abide by the government's policy directives. Ironically, as the access of the Indian corporate sector to foreign funds has increased, coupled with a comparatively buoyant capital market and high domestic interest rates, companies have increasingly shifted to using equity, instead of debt, to finance projects. This has saddled the DFIs with financing second and third tier companies, thus increasing their asset risk profile. Movements in interest rates, financial and currency risk management and successful diversification into other financial services are influencing the stability in income of the DFIs.

Broadly speaking, economies can be characterised as being either stock-market oriented or bank oriented (Allen 1993, Porter 1992). Traditionally, the US and UK have been regarded as being stock-market oriented while Japanese and German economies are regarded as being bank oriented. A priori, one could expect agency costs and information problems to be lower in a bank oriented system than a stock-market oriented system. Therefore, internal finance should be less important in a bank oriented system than a stock market oriented system.

In this framework, India can be considered to be a bank oriented system. As noted by Bhatt (1994), the lead bank system in India is similar to the universal banks in Germany and the main bank system in Japan. In the late 1960s, India devised three

main types of lead banks with a view to raising the rate of financial savings, allocation of financial resources to the most productive uses, and improving the investment and productive efficiency of assisted enterprises. In practice, the lead development bank system in India has not fully accomplished its goals of promoting efficient import substitution and export promotion because of deficiencies in:

- project appraisal and evaluation
- monitoring and supervision of projects
- mechanisms to anticipate problems and take a proactive role in tackling them through managerial, technical, and/or financial assistance in time

The primary reason for the lack of adequate monitoring has been their failure to evolve mechanisms of co-ordination with the commercial banks, who typically provide working capital finance in the Indian context. In addition, there has been the classic free rider problem with regard to monitoring of borrower activities due to the absence of an institutional framework for co-ordination of decision making among banks. In addition, although the lead bank system in India shares several characteristics of the Japanese system, the differences in overall institutional and policy framework has made the Indian system very different compared to the Japanese. Also, unlike Japan and Germany, commercial banks in India do not own equity in corporation; only the development banks hold significant equity stakes in firms. In addition, term finance provided by the development banks can, in certain circumstances be converted into equity. This has proved controversial in context of the market for corporate control in certain instances.

As highlighted by the table below, in case of Indian firms, external finance has become more important in the 1980s compared to the 1970s. This is due to debt as

well as equity; in particular, equity has become more important after 1987, consistent with the overall boom in the stock market during this time. Overall, on an average, internal finance contributed about 42 per cent of total funds and external finance the remaining 58 per cent. While external equity made up about 4 per cent of all funds, long term borrowing contributed 29 per cent.

<i>Particulars</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>
No. of listed companies	4702	5603	5832	5853
Market capitalisation (\$ Billion)	138	153	129	142
Annual turnover (\$ Billion)	22	15	35	53
Average daily turnover (\$ Billion)	0.1	0.1	0.1	0.2
Average number of daily deals	85,010	73,855	64,503	80,192
BSE Sensitive Index (Year end)	3261	3367	3361	3893
No. of Registered FIIs	308	366	439	496
FII Net investment (\$ billion)	0.67	0.92	0.85	0.63

Source: Bombay Stock Exchange

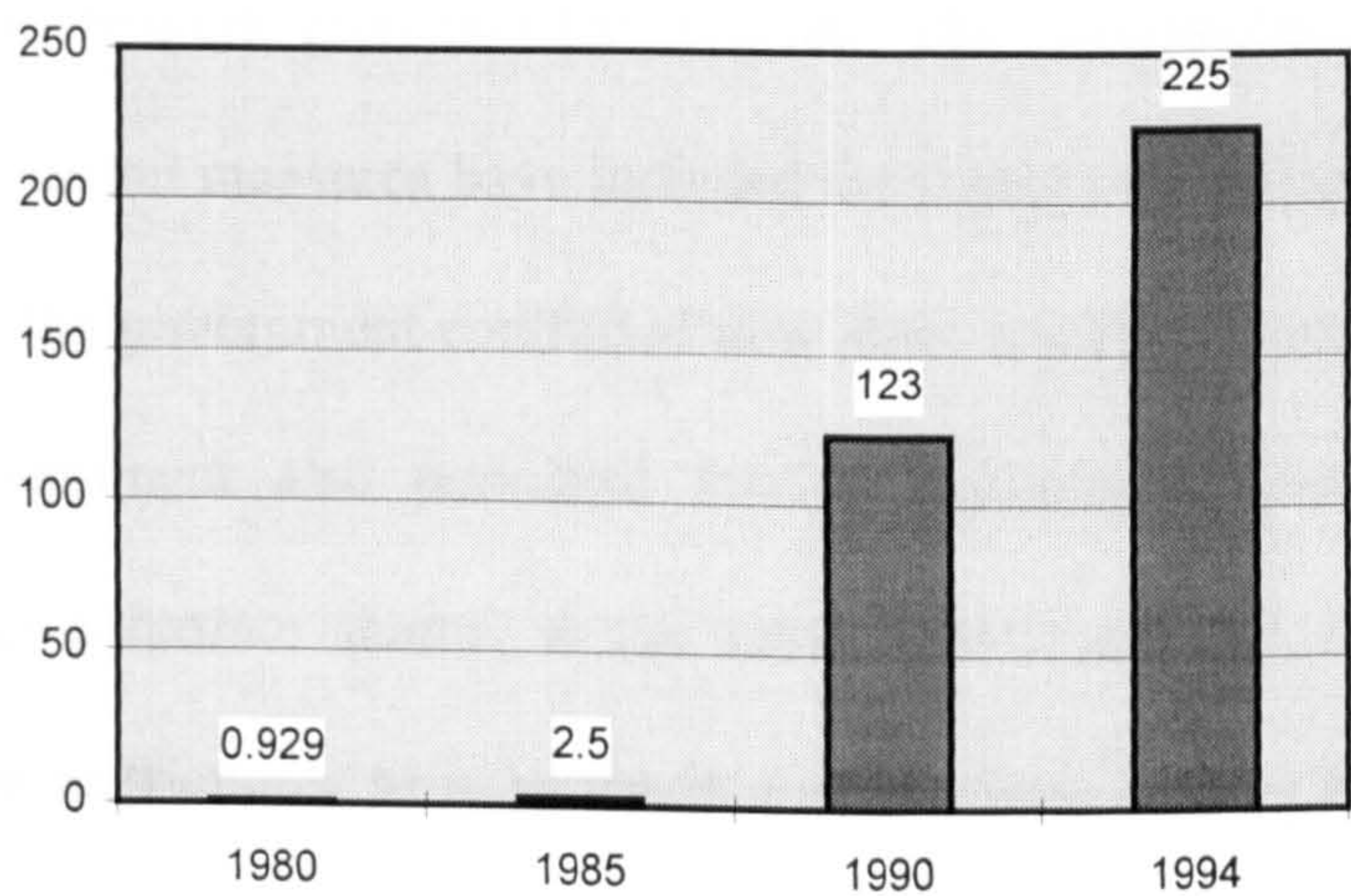
Table 4.4: An overview of the Bombay stock market

The Indian capital market has come a long way since its inception over a century ago. The first stock exchange was established in Bombay in 1875 as ‘The Native Share and Stockbrokers’ Association’. It has evolved over the years into its present status as the premier stock exchange in the country. The Bombay Stock Exchange is the oldest in Asia, even older than the Tokyo Stock Exchange, which was founded in 1878. At present there are 21 stock exchanges in India recognised under the Securities Contract Regulation Act (1956). India has far more listed companies than any other emerging market; in fact only the US matches India on this count.

Although India has had a stock exchange for very long, its development until 1980 was erratic, but in general very slow. The total market capitalisation on the Indian stock markets as a proportion of GDP in 1980 was only 5 per cent. Following the limited liberalisation measures initiated in the eighties, the ratio had risen to 13 per cent by 1990. It was in the wake of the liberalisation measures initiated in the early

90's that the stock market growth has been explosive. By 1993, total market capitalisation had reached 60 per cent of GDP. The rapidity of the growth can best be appreciated from an historical perspective - it probably took the US stock market 85 years to achieve a broadly similar increase in capitalisation ratio, from 7 to 71 per cent (Mullins 1993). There has been an almost thirty fold increase in daily turnover of shares on the Bombay stock exchange, with the daily trading volume on the Bombay market in the early 1990s similar to that in London - about 45,000 trades a day.

The growth in the stock market is also reflected in the large amounts of capital that Indian corporations raised on a very active primary market to finance their growth in the 1980s and 1990s. As shown in the figure below, there was a 250 fold increase in the amount raised through corporate securities since 1980. Another indicator of an extremely active private market was the fact that in 1994-95 nearly 1700 companies raised equity capital, either through direct offerings or through rights issues; of these 369 were new companies.



Source: Bombay Stock Exchange

Figure 4.2: Amount raised through primary market (Billion Rupees)

There is general consensus that the stock market boom, reflected in the Bombay Sensitive Index (see figure) was largely policy induced (Balasubramanian (1993), Nagaraj (1996), Singh (1998)). Several studies, for example, Sahni (1985), Kothari (1986), Lal (1990), Ramesh Gupta (1991, 1992), Raghunathan (1991), Varma (1992), and L.C. Gupta (1992) comment on the Indian capital market in general and trading systems in the stock exchanges in particular and suggest that the systems therein are rather antiquated and inefficient, and suffer from major weaknesses and malpractices. According to most of these studies, significant reforms are required if the stock exchanges are to be geared up to the envisaged growth in the Indian capital market. Stock market reforms, liberalisation, and fresh regulation happened simultaneously in an economy that was facing acute macroeconomic problems (Joshi and Little, 1996). The most crucial piece of legislation that was enacted was the Securities and Exchange Board Act of 1992, which attempts to ensure transparency in the stock market. Under this act, the authorities have attempted to regulate the activities of stockbrokers, merchant bankers, and other intermediaries in the primary market. Liberalisation measures have included the repeal of the Capital Issues Act of 1947 by which the government controlled new share issues and determined the issue price. The government also permitted foreign institutional investors to directly purchase Indian corporate shares; at the same time it allowed Indian companies, subject to some restrictions, to raise funds abroad. According to Pandya (1992) the measures brought in by SEBI broadly cover measures for allocative efficiency in the primary market with fair degree of transparency, reforms in the secondary market for visible and mutual funds, regulation of various market intermediaries and above all for the protection of the investing public. On whether SEBI has been successful in

improving the functioning of the stock markets, the conclusions are mixed (Francis, 1991; Barua, 1993; Dhillon, 1993). These studies reveal that the regulation of the markets through various instruments have had only a marginal impact on the dual objectives of controlling market activity and insolvency risk.

By the early 1980s, in the context of a worsening economic situation, neither the development finance institutions nor the commercial banks could meet their government imposed requirements to lend to the priority sectors of the economy at concessional rates and also meet the needs of the private corporate sector. The Reserve Bank of India advised the mobilization of household savings through capital market expansion to meet the corporate sector's requirements (Singh 1998). In practice, this translated into a rapid growth in the number of investors on the stock market, mainly through mutual funds. The entry of a large number of investors, especially of foreign investors, lowered the cost of capital for Indian corporations, which in turn encouraged them to raise large amounts of capital on the stock market.

In developed countries, bond markets tend to be bigger in size than the equity market. In India however, corporate bond market is quite small compared to the size of the equity market. One of the main reasons for this is that a large part of corporate debt, being loan from financial intermediaries, is not securitised. But this picture is undergoing a sea change in the last few years, as increasingly larger number of companies are entering the capital market to raise funds directly from the market through issue of convertible and non-convertible debentures. The deregulation of interest rates is also resulting in innovative instruments being used by companies to raise resources from the capital market.

Conclusion:

“Given the complexity of India’s development experience, it would be idle to pretend that everything it did was right but it would be naïve to suggest that everything it did was wrong” (Nayyar 1998). From a long term perspective, when compared to most developing countries, the most important success was in creating a thriving political democracy with a mixed economy which provides a viable model for the countries that are making the transition from communism. The Indian experience clearly illustrates the possibility of succeeding in such a arduous venture and at the same time highlights the limitations and pitfalls of development. This chapter has clearly highlighted the institutional constraints within which the Indian economy works. From 1947 to 1991, although there was consensus about following a state market capitalist path, the pressures from various groups forced the various governments to choose the path of least resistance. This effectively diluted the impact of most policy initiatives - on the plus side it meant that the country avoided the excesses of other developing countries; on the other hand, political compromises meant that even measures that would be beneficial were watered down. After the economic crisis of 1991, initially there was enthusiasm for following a pluralistic neo-liberal economic path to development. But the perceived failure of these policies and the conflicting interests of domestic interest groups has led to the proposed adoption of a corporatist model of development. This confusion is partly a function of the extant political economy where there is a problem in resolving the view points of various pressure groups. These conflicts are best reflected in the financial system where there is a bank oriented stake holder economy, which is trying to cohabit with a

thriving share-market driven domestic industry. These conflicts are best reflected in the financial system where there is a bank oriented stakeholder economy, which is trying to cohabit with a thriving share-market driven domestic industry. We have suggested that the mixed economy within a democratic framework has worked to the advantage of India during the recent crisis - the various institutions that have developed over the past have limited the excesses taking place, especially in the context of short term borrowing by the private sector (which has been one of the main factors leading to the crisis in the rest of Asia), free convertibility of the currency and excessive “crony” capitalism. Although it is the constraints imposed by the institutions and organisations within the political economy that has checked the pace of liberalisation, this ironically, has worked to India’s advantage in the recent crisis, especially in relation to capital controls on foreign currency movements. Notwithstanding the fact that India was one of the “safe havens” during the crisis, there is a obviously a need to focus much more on the building of institutions and greater transparency within the business system, at the same time quickening the pace of liberalisation. This is especially true if India has to keep up with the rapid changes that are taking place within the global economy with knowledge industries emerging as one of the primary locomotives of economic development.

In the context of corporate governance and capital allocation, India today is caught between the two main systems, i.e. shareholder system dominated by the share markets or be guided by the government through the financial institutions and banks. At present given the government’s fiscal problems, it looks like the India is drifting towards the establishment of the market for corporate control. But given the problems associated with the interlocking of intergroup interests of large family businesses, the

total exclusion of ordinary shareholders from decisions regarding corporate restructuring, mergers, divestments, etc. and the lack of institutional safeguards, this drift might not be in the best interests of the nation's financial health.

SECTION II:

***KNOWLEDGE, DEVELOPMENT & INTERNATIONAL
BUSINESS***

KNOWLEDGE BASED EXCHANGE: **INALIENABILITY AND RECIPROCITY**

Introduction:

An organisation's ability to create and exchange knowledge within a network of social and technological relationships has become crucial to success in today's world of globalisation, uncertainty and turbulence. In chapters 5, 6, and 7 we explore various aspects of knowledge which will have a profound impact on development and international business. In this chapter, the focus will be on the distinctive nature of exchange of knowledge given the fact that unlike most other goods that are exchanged it is intangible. Most of the vast past research on knowledge based competition has tended to rely primarily on transaction cost analysis, and to neglect the salient features of the nature of knowledge as an intangible resource and the difficulties of assessing its value. Recent exceptions include Grant (1996); Choi and Lee (1997); Spender (1996). We believe that the intangible nature of knowledge especially in today's constantly turbulent world, shifts the focus away from knowledge products or services being exchanged in the market, towards how the market identifies certain firms and certifies their knowledge resources and value in the market. The intangibility of knowledge also raises the fundamental question of the effectiveness of knowledge based market exchange, and what possible alternatives exist to such market based exchange.

Research by behaviourally oriented scholars such as Polyani (1944, 1957, 1966, 1971); White (1970); Burt (1992); Coleman (1990a, 1990b); Granovetter (1985)

have helped to show that once analysis moves away from the abstract economic models of perfect information and frictionless exchange, reality is based on the complexities of imperfect competition and exchange based on social structures, personal contacts and relationships. We believe that the realities of such social capital, structure and relational effects are especially true in knowledge based industries (Walker et al., 1987; Spender, 1996). The significance of this proposition rests on the fact that it is very difficult to ascertain the quality and value of knowledge, not only at the time of exchange, but potentially even after the exchange. The recent research on knowledge has focused on creation and benefits of knowledge, without providing frameworks for understanding the nature of exchange in intangible assets (Itami & Roehl, 1987) such as knowledge.

If knowledge is relatively tacit and implicit (Polyani, 1957), the nature of exchange cannot be the same as for more explicit information exchange and for the exchange of tangible assets such as capital, plants, equipment. As noted by Lippman and Rumelt (1982); Spender (1996); Grant (1996), an organisation's competitive advantage may increasingly be based on variables that are least identifiable, and most difficult to measure. Thus, the ability to identify the other firm or, "actor" in exchange rather than the product or service, and assess the value of the firm becomes crucial. Such identification can be greatly influenced by external intermediaries in the market.

Our theory in this chapter is rooted in the concept of "exchange" (Simmel, 1978; Sahlins, 1972; Bourdieu, 1977; Levi-Strauss, 1966; Durkheim, 1951). The objective of this chapter are twofold. Firstly, the intangibility of knowledge in exchange raises North's (1990) important point on measurement and enforcement

costs, which Williamson (1985) has taken as exogenously given (Hirsch and Lounsbury, 1996). We analyse the importance of intangibility and “inalienability” in understanding the nature of knowledge as an asset. We believe that this characteristic of knowledge requires us to develop different conceptual frameworks by which knowledge assets are exchanged. Knowledge based assets tend to be inalienable, whereas commodity type assets, which can be freely exchanged in the market are alienable.

Secondly, although existing research views the accumulation of knowledge as a positive attribute, the process of exchange whereby knowledge is acquired or lost is not sufficiently analysed; plus, if knowledge is tacit, informal, how can it have a transparent market valuation? The premise in this chapter is that because the intangibility and inalienability of knowledge requires a more informal system of exchange and co-ordination, we can learn from the social anthropological literature (Sahlins, 1972; Simmel, 1978) which has studied the nature of exchange in, primitive, premodern, social systems. These systems developed effective exchange mechanisms without formal systems of law or contracts (Bourdieu, 1990; Sahlin, 1972; Casson, 1996), however they also studied in depth the difference between exchange of commodities, versus exchange of inalienable assets (Gregory, 1982). We believe that the exchange of tacit, informal assets such as knowledge (Polyani, 1957, 1966) requires analogous frameworks of analysis.

Modern Capitalism and Alternatives:

In analysing the concepts of organisations, markets and exchange in modern society, we implicitly assume the model of modern “capitalism”. Modern capitalism

and its particular approach to organisation, production, distribution and market exchange is seen to be superior to and in direct contrast to, central planning, or the system of the former Soviet-type economies (Elster and Moene, 1989). Capitalism is then private ownership of most means of production and decentralised market exchange; in contrast, central planning or socialism is government ownership of most important means of production and centralised distribution (Weitzman, 1984, 1985). In reality, capitalism and market exchange has elements of central planning and central planning has elements of market exchange; nevertheless the two can be seen as extreme contrasts. The question we raise in this chapter is if knowledge has become increasingly important as an asset and if knowledge is difficult to exchange through markets (Polyani, 1957, 1966; Spender, 1996), do we automatically assume that between the two systems mentioned, the capitalism model will also be the ideal one for utilising and exchanging knowledge?

There is a certain consensus that the system of central planning in the former Soviet union type systems could have been potentially a perfect system, if there were perfect information, and an abundance of “trust” (Elster and Moene, 1989). With full information and trust between principals and agents, the central planning system could avoid the potential pitfalls of opportunism (Williamson, 1975, 1985) or self-interest. But recent research in management and social sciences has shown the increasing importance of trust in all systems, including the capitalism system which is seen as the system of modern society (Etzioni, 1996). Trust also becomes essential, when the nature of exchange and assets being exchanged has intangibility quality or, it is difficult to have a market valuation or price.

Polyani (1944, 1957, 1966, 1971), who is universally quoted in terms of the distinctions of implicit knowledge versus explicit information actually discussed, an alternative model to either capitalism or socialism. Polyani (1957) and other social scientists such as Kolm (1984) have suggested the existence of a third system, that of, reciprocity, defined as, “the giving and receiving according to need” (Polyani, pg. 210). This idea overlaps partly with the concept of worker-managed producer co-operatives which have been analysed in detail by Weitzman (1984, 1985); this system has also been called, the profit sharing system. The distinctions among these three systems is shown in the figure below:

<i>SYSTEM</i>	<i>Major characteristics</i>
<i>Capitalism</i>	Private ownership of most factors of production, with decentralised decisions and <u>exchange</u> carried out by the market
<i>Central Planning (socialism)</i>	Government ownership of most factors of production, with centralised decisions, <u>redistribution</u> carried out by government
<i>Alternative Systems</i>	<u>Reciprocity</u> , based on giving and receiving according to need, profit sharing among all actors in the system

Table 5.1: Capitalism, Central Planning versus Alternative Systems

These earlier works by Polyani (1957), Kolm (1984), Weitzman (1984, 1985) however do not provide a sketch of the institutions that could potentially work in such a reciprocity based system. The ideas and frameworks provided by this earlier research also do not distinguish between the nature of production, distribution and exchange in tangible assets such as manufactured products, and intangible assets, such as knowledge. The purpose of this chapter is to fill this void. We sketch out a

preliminary framework for understanding such reciprocity based systems, since they are traditionally seen as part of primate, or pre-modern societies (Bourdieu, 1977, 1990; Gregory, 1982). However, one characteristic of pre-modern societies was that exchange was based on informal, social exchange, overlapping with concepts of embeddedness (Granovetter, 1985; Coleman, 1990; Burt, 1992) of the social structure; these systems of exchange combined various elements of markets, reciprocity, redistribution in exchange; we believe this can provide a framework for understanding knowledge based exchange.

In terms of trust based exchange, these pre-modern societies, based on informality, had created institutions for undertaking trust based exchange in, “inalienable” or intangible assets. The literature agrees that intangibility is a key component of knowledge as an asset (Spender, 1996; Kogut and Zander, 1992). Thus, the nature of exchange of knowledge assets can learn from the nature of exchange in these pre-modern societies on inalienable assets (Bourdieu, 1977, 1990).

Money and spheres of exchange:

In order to develop our frameworks for analysing the exchange of knowledge as an asset, we need to broadly discuss the nature of markets, and market based exchange. Although the vastly expanding research on knowledge emphasises that knowledge is tacit, informal (Polyani, 1957) and thus, unlike physical assets such as equipment, capital, difficult to acquire through the market, there is insufficient analysis on the nature of, exchange for knowledge assets, and how it is different from exchange of non-knowledge assets. The key distinction is that tangible, physical assets such as equipment, capital have a “valuation” and price determined in the

market; this valuation serves as an universal, transparent mechanism to facilitate the exchange of such physical assets. Under market exchange of commodities, assets being exchanged are focalised, quantified, valued at a particular price (Gell, 1982). Tacit, informal assets such as knowledge, are difficult to determine a valuation for, and thus, the value can be context or situation specific, or specific to particular organisations or actors (Polyani, 1944, 1971; Spender, 1996; Choi and Lee, 1997). What facilitates the co-ordination of market based exchange? Money and the price or valuation by the market seem crucial; money itself has different functions in market based capitalism versus centrally planned socialism. Under capitalism, most income is spent on housing and transport with less on clothing and consumer necessities; in contrast under centrally planned socialism, housing and transport are subsidised and most income is spent on clothing and consumer necessities (Neale, 1976; Gudeman, 1986; Humphrey and Hugh-Jones, 1992). Prices thus reflect very different values, even for tangible commodities such as transport, clothing, consumer necessities.

Past research in sociology and anthropology have analysed the important role of money in helping to determine and create markets. The existence of multipurpose money in turn allows a valuation of assets, goods, services in the market place. But as mentioned earlier, intangible assets such as knowledge are difficult to place a market valuation, because their value may be specific to organisations, actors, or even situation or context specific. Such assets may have a symbolic economic value (Bourdieu, 1977, 1990; Douglas and Isherwood, 1979). Research in social anthropology have shown that in various societies where money exists, there has been a tendency to category, different, “spheres” or exchange, certain tangible items such as foodstuffs and raw materials were exchanged for money, but more intangible items

such as cloth would only be given as gifts without the exchange of money (Appadurai, 1986; Sahlins, 1972; Simmel, 1978; Gregory, 1982; Neale, 1976). Although such spheres of exchange could be seen as the difference between market exchange and social embeddedness (Granovetter, 1985), we are referring to the fact that certain, intangible assets such as knowledge may be reliant on different spheres than the spheres of exchange for tangible assets such as plant, equipment, capital. Such different spheres of exchange also exist in exchanges within families or households (Douglas and Isherwood, 1979; Bourdieu, 1990). We believe this is crucial in understanding the exchange of knowledge: it is difficult for knowledge assets to have a market valuation, or price determined by multipurpose money.

Invisible, Intangible & Inalienable Assets:

The rapidly expanding literature on knowledge based assets has raised the importance of, invisible assets in the success of organisations. As analysed by Jacobson (1992), dynamic frameworks of competition, such as those advocated by the Austrian school of firm competition places a greater emphasis on intangible, invisible assets and the role of unobservable factors. Itami and Roehl (1987) have also noted that traditional research has tended to define assets too narrowly, focusing on the tangible assets, such as plant and equipment. They note that invisible assets such as accumulated consumer information, brand name reputation, management skill, corporate cultures are just as important to the success of the firm. These invisible assets are key to a firm's success because they are difficult to obtain, and in some sense, difficult for competitors to, imitate. The invisibility of such assets in turn raises the problem of exchange of such assets also with potential collaborators (Choi and Lee, 1997). This has similarities to the

idea of causal ambiguity (Lippman and Rumelt, 1982) aspects of a firm's strategy, which are difficult for competitors to overcome or imitate because of the ambiguous nature of the competitive advantage. Such asymmetric information and the resulting competitive advantage may be greater for firms with invisible assets, because competitors find such assets ambiguous, and more difficult to imitate. Knowledge has many similar characteristics of such invisible assets; how in turn, is knowledge exchanged?

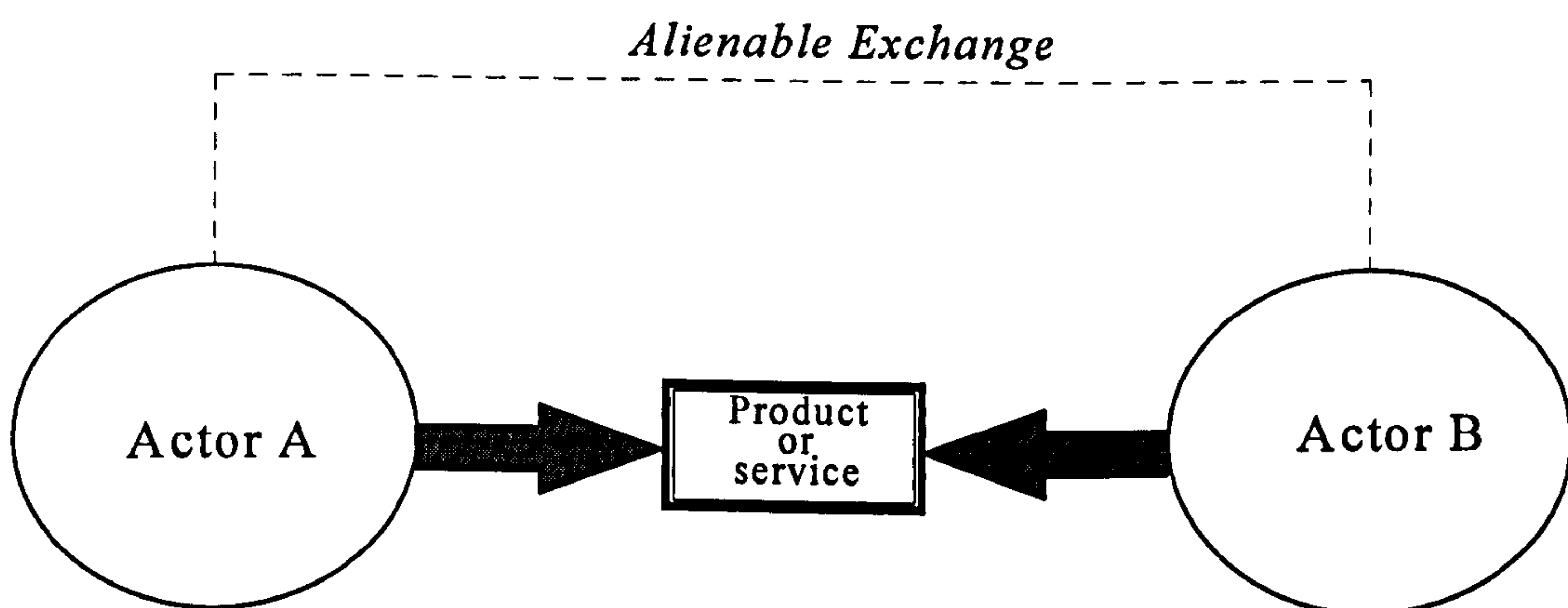
In the abstract, system of anonymous exchange and competition used in many economics driven models, there is no need to identify the other actor or actors within market based exchange. The assumption is that the content or value of the product or service is tangible, thus there is no uncertainty or transaction costs and the value and tangible quality of the product or service being exchanged will determine the nature of the relationship. In this sense, there is no, social aspect of the relationship. However, the expanding research on networks, and other social capital driven organisations (Granovetter, 1985; Burt, 1992; Coleman, 1990a, 1990b; Raub and Weesie, 1990; Schrum and Withnow, 1988; Walker et al, 1997) has tried to analyse broader aspects of exchange. What has been insufficiently analysed in these earlier works is that they have tended to just distinguish between market exchange and social exchange as two extremes (Granovetter, 1985; Burt, 1992; Coleman, 1990). A more formal typology of exchange mechanisms, and the overlap between market and social exchange which exists in most societies (Polyani 1944, 1957, 1966, 1971) has not been sufficiently discussed.

We try and provide such a typology of exchange, in order to better understand the nature of exchange in invisible assets such as knowledge based assets. To do so,

we need to make the distinction between commodities, or alienable assets, which are freely exchanged in markets, and inalienable assets, which tend to have more of a social exchange aspect. We use the term “alienable”, a term more commonly used in social anthropology (Simmel, 1978; Bourdieu, 1990; Sahlins, 1972), to describe the exchange of such commodities under market exchange. We now define the difference between intangibility and inalienability:

“.....the market value of intangible assets can only be known through high measurement costs.....inalienable assets may not have a market value, and may have value only in organisation specific and situation specific contexts.

Thus, according to our definition, intangible assets can be measured and be accorded a valuation in the market, however the measurement costs may be high. Inalienable assets however may not have a market valuation; their value may be dependent on organisations, individuals, situations and context. Shown in figure 5.1 below, is a classical case of market exchange of alienable commodities.



Source: Adapted from Choi & Lee (1997)

Figure 5.1: Exchange of “alienable” assets

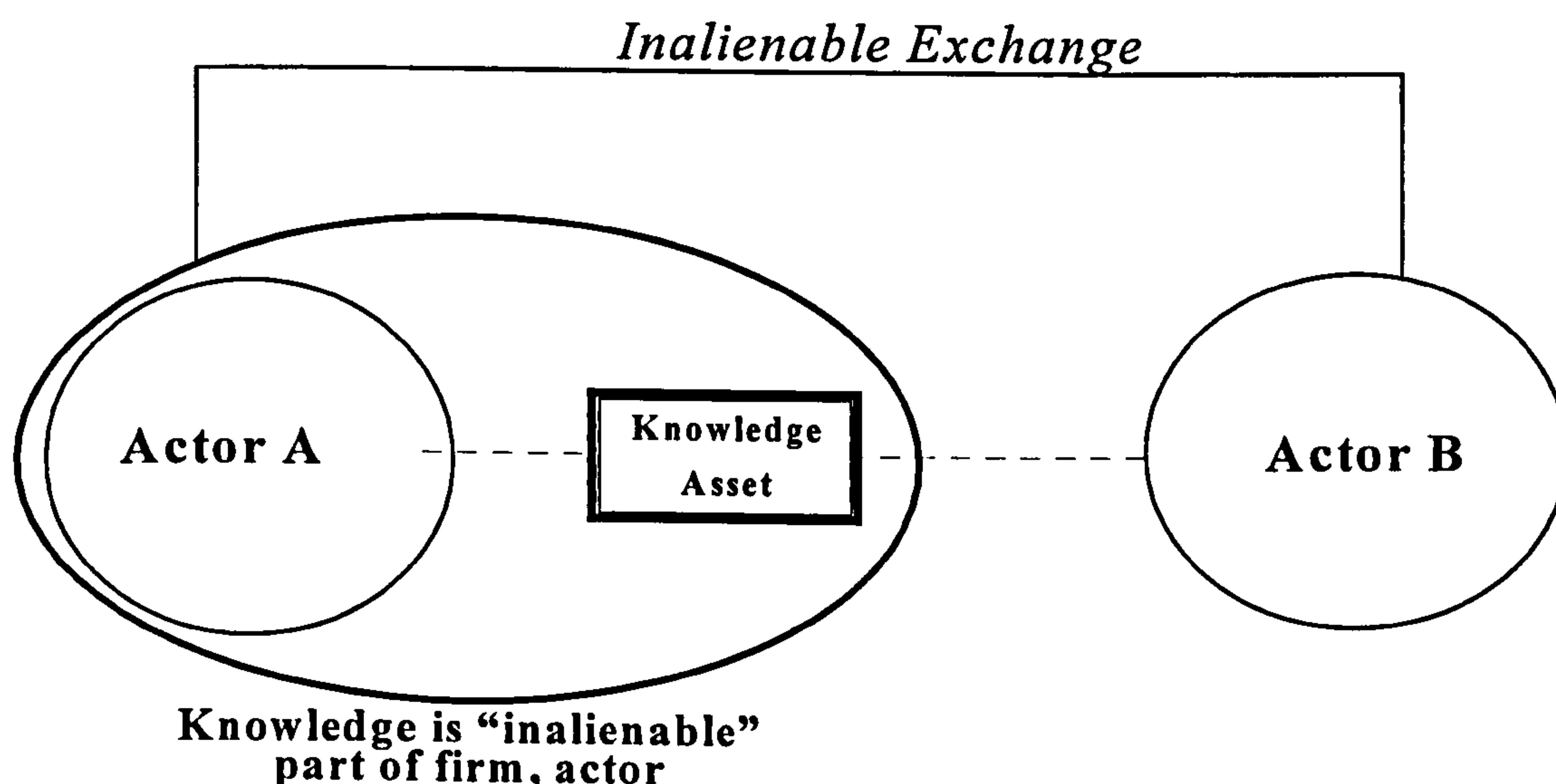
As analysed by North (1990), Hirsch and Lounsbury (1996), information costs, such as measurement costs are one of the fundamental problems of interactions

and exchange in the market. Such measurement costs are especially high for knowledge based industries, where there is high intangibility of value and content. Thus, the identity of the firms and consumers in exchange becomes relatively more important as the value of what is being exchanged becomes more uncertain.

The limitations of the pioneering works by North (1990) and others is an insufficient analysis of the systems of “exchange”. Market exchange, which leads to the exchange of alienable, commodities has been seen to characterise modern societies; in contrast to primitive societies, which rely more on social, inalienable exchange. The concept of gifts has been used by social anthropological researchers to show the difference with commodities; gifts are inalienable and thus exchanged socially, commodities are alienable and thus exchanged in the market (Bourdieu, 1977, 1990; Douglas and Isherwood, 1979; Gregory, 1992). However as far back as Polanyi (1944), it has been known that most societies have elements of both alienability and inalienability. This is especially the case with asset such as, knowledge, which have a tacit, informal characteristic (Polanyi, 1957, 1966, 1971) and are thus often organisation or individual specific (Choi and Lee, 1997).

Ghoshal and Moran (1996) discuss the three conditions which must be satisfied for exchange and combination of resources to take place. However, similar to other works on networks and social capital (Granovetter, 1985; Burt, 1992) they do not analyse the different “structures” of exchange and focus instead on factors such as the opportunity, value expectancy and motivation; thus they do not distinguish between alienable assets such as commodities, versus inalienable assets such as knowledge. In exchanging inalienable assets, a consumer can in turn be driven by the identity of a firm, in addition to the quality and value of the product or service being

provided. Thus, the crucial aspect of a firm's competitive assets and advantage may shift away from the product or service to the importance of its overall firm identity or reputation in the market. In the extreme case, the product or service can actually become identified with the firm, and with the firm's quality, status leading to an increased role of trust and long term relationships within the market. In the case of inalienable assets such as, gifts, the identity of the actor giving the gift, can in turn determine its value (Bourdieu, 1977, 1990; Gregory, 1982). This is shown in the figure below where firms and consumers are categorised as actors.



Source: Adapted from Choi & Lee (1997)

Figure 5.2: Exchange of inalienable assets

We argue that such identification in the market is “relative” and leads to status (Bourdieu, 1977, 1990) within the industry. This is similar to the concept of, “gifts” in social anthropology. Exchanges based on gifts are seen to create status, and symbolic, relative rankings for the exchange partners (Sahlins, 1972; Simmel, 1978).

Exchange and Inalienability:

Researchers in sociology and anthropology have indicated the important distinction between alienability and inalienability. Alienability refers to tangible assets, products and are fundamental to market based exchange, such commodities can be easily valued to have certain monetary prices, and their values can be quantified. In contrast, inalienability refers to intangible assets, such as gifts, which may be more difficult to measure in terms of market prices, and may be more dependent on quality rather than quantity measures (Polyani, 1944, 1957; Sahlins, 1972; Simmel, 1978; Douglas and Isherwood, 1979).

In this sense, exchange of inalienable assets such as knowledge are similar to, “barter” based exchange, which are seen to always have a social or psychological component (Bourdieu, 1977; Gell, 1982; Humphrey and Hugh-Jones, 1992; Appadurai, 1986). Barter exchange differs from commodity based exchange, which involves money and is done through the market. Traditionally, barter type exchange has been thought as only existing in primitive or pre-modern societies, however recent research on topics such as countertrade (Choi and Lee, 1997; Marin and Schnitzer, 1995) and linked trade have shown that these various types of non-standard exchange can exist even in modern economies such as Western Europe or North America. This means that non-standard types of exchange, including barter have an additional value, that may not be measurable in terms of market valuation and market price, but nevertheless facilitate exchange of inalienable assets such as knowledge.

The important point is that for inalienable assets, the identity of the exchange partner, or actor is important in determining the quality of the inalienable asset.

Knowledge is seen as intangible, and research in knowledge as an asset does discuss the fact that knowledge is often organisation or individual specific (Choi and Lee, 1997; Grant, 1996; Spender, 1996). An example is that of, gift exchange; it is however a more general issue of exchange that has been much more thoroughly analysed in the social anthropology literature such as Bourdieu (1977, 1990); Simmel (1978). Gift type exchanges were traditionally seen as the extreme opposite of commodities in market exchange (Malinowski, 1961; Gregory, 1982; Bourdieu, 1977, 1990). Including barter type transactions as a, “alternative” or third category, we have the three categories of exchange: reciprocity as in barter; redistribution as in gifts; market exchange as in commodities. In terms of our earlier classification among capitalism, central planning (socialism) and alternative systems: market exchange corresponds to capitalism; redistribution corresponds socialism, central planning; barter or “reciprocal” exchange corresponds to the third, alternative system. This is shown in the table below.

<i>Types of Exchange</i>	<i>Major Characteristics</i>
<i>Reciprocity (Alternative system)</i>	Under <i>barter</i> type exchange, the identity of the exchange partners are known, with the market valuation, price less important than the social, psychological aspects
<i>Redistribution (Central planning, socialism)</i>	Under <i>gift</i> exchange, inalienable assets are exchanged, often between actors of different status, leading to a certain redistribution of assets
<i>Market Exchange (Capitalism)</i>	Under <i>commodity</i> exchange, exchange is through money of alienable objects, products, services between free actors, agents, who may enact further exchange

Table 5.2: Reciprocity, Redistribution, Market Exchange

Under alienable exchange, the identity of the actors in exchange is not important. This is because the asset being exchanged is highly alienable, tangible, and the quality and market value transparent. In addition, the rules and procedures of exchange, such as search costs, or time of exchange, frequency are already determined again, making the identity of the actors less important. In contrast, when the asset being exchange is, inalienable, then the asset does not have a clear, transparent, market value, because the quality is intangible. If an asset such as knowledge, is also linked to rapidly emerging new technologies, such as in multimedia industries, the rules, procedures of exchange may also be uncertain. For example, whereas commodities may be exchanged at a particular time, in the world of the internet, assets are constantly being exchanged at all times. The net result, is a high importance, on the identity of the actors. This distinction between alienable and inalienable or knowledge based exchange is shown in the figure below.

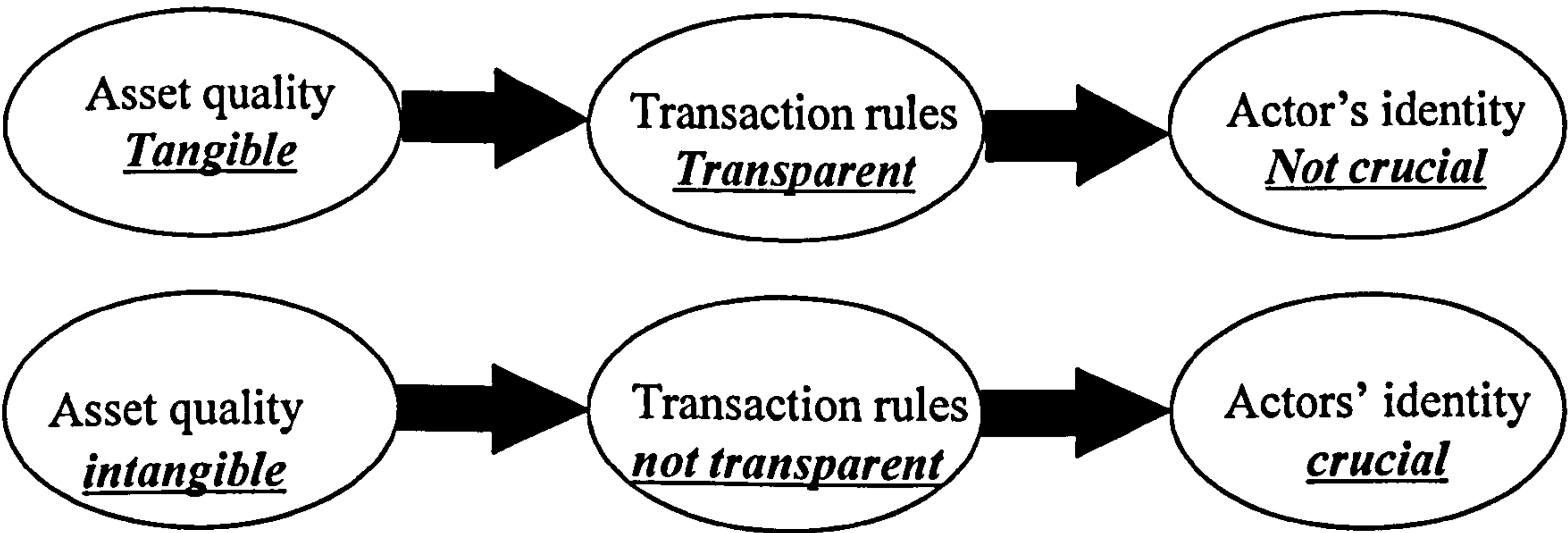


Figure 5.3: Alienable versus inalienable exchange

Knowledge Based Exchange:

In modern societies, exchange is seen to occur between players in the anonymous marketplace (Granovetter, 1985; White, 1970; Burt, 1992; Coleman, 1990). But because of uncertainty, incomplete and asymmetric information issues, many types of exchange even in mature economies of Western Europe and North America have elements of, “reciprocal exchange.” Reciprocal exchange can be defined as types of exchange where there are informally enforced agreements between parties in exchanging goods, services (Choi, 1994; Kolm, 1984). Reciprocal exchange has elements of both these systems and has similarities to the “gift” exchange that anthropologists have analysed in primitive and premodern societies (Levi-Strauss, 1966; Gregory, 1992; Bourdieu, 1977, 1990; Malinowski, 1961; Sahlins, 1972). However, gift exchange or reciprocal exchange has also been commonly seen in modern societies, and has been analysed in various recent works such as Choi (1994); Schlicht (1993); Kranton (1996); de Soto (1989).

These recent works on gift or reciprocal exchange have shown that they can have various advantages over anonymous market exchange even in modern societies. Such exchange invariably has elements of, “trust” in the relationship. Trust is defined as having some faith in the workings of systems or processes of which one possesses only limited knowledge. Trust is vested not in individuals but in abstract capacities. Therefore, the operation of trust relationships depend on the consumers’ knowledge and the process of information that directly constrains the consumers’ decision making and behaviour. There is a vast literature on notions of trust throughout management and social sciences research. Some general works that analyse issues of

trust in markets and organisations include, Douglas and Isherwood (1979); Choi (1994); Elster and Moene (1989); Williamson (1985).

The purpose of this chapter was to address the fundamental issue that knowledge and knowledge based assets cannot be readily exchanged in the market. The response in the literature (Spender, 1996; Williamson, 1985) is to consider alternatives such as knowledge transfer within organisations, across national boundaries, or in strategic alliances (Choi and Lee, 1997). However, we believe that when an asset cannot be readily exchanged in the market, we are in conflict with the foundations of what we call, “modern exchange”. Thus, the nature of exchange itself has to be questioned in order to find the most effective ways of exchanging knowledge. In this paper, we analysed the alternatives to such market based exchange, and indirectly to capitalism.

Conclusions:

Most of the vast past research on knowledge based competition has tended to rely primarily on transaction cost analysis, and to neglect the salient features of the nature of knowledge as an intangible resource and the difficulties of assessing its value. Recent exceptions include Grant (1996); Choi and Lee (1997); Spender (1996). We believe that the intangible nature of knowledge especially in today’s constantly turbulent world, shifts the focus away from products or services being exchanged in the market, towards how the market “identifies” through external cues, certain firms and certifies their resources and value in the market; the identity of the actor in exchange in turn requires a more social, reciprocal and trust based analysis.

In this chapter, we defined the distinction between intangible and inalienable. The market value of intangible assets can be known, through high measurement costs; inalienable assets, may not have a market value, and may have value only in organisation specific and situation specific contexts. Although existing research views the accumulation of knowledge as a positive attribute, the process of “exchange” whereby knowledge is acquired or lost is not sufficiently analysed. There is a need to create frameworks for understanding exchange mechanisms for intangible and inalienable assets such as knowledge.

We provided alternative frameworks based on reciprocity and redistribution, exchange systems traditionally more commonly associated with pre-modern societies (Sahlins, 1972; Simmel, 1978). However, these non-capitalist societies have traditionally developed exchange mechanisms for differentiating between commodities type assets, which are exchanged through the market, and inalienable assets such as knowledge, which are exchanged through reciprocal arrangements. These in turn may be the most effective exchange mechanism for intangible and inalienable assets such as, knowledge.

ECONOMIC GEOGRAPHY AND INTERNATIONAL BUSINESS

Introduction:

In the previous chapter, we analysed market exchange and alternative frameworks from modern and pre-modern societies, in order to understand the nature of exchange in intangible and inalienable assets such as knowledge. We believe that the intangible nature of knowledge especially in today's constantly turbulent world, shifts the focus away from products or services being exchanged in the market, towards how the market "identifies" through external cues, certain firms and certifies their resources and value in the market; the identity of the actor in exchange in turn requires a more social, reciprocal and trust based analysis. We defined the distinction between intangible and inalienable. The market value of intangible assets can be known, through high measurement costs; inalienable assets, may not have a market value, and may have value only in organisation specific and situation specific contexts.

This very distinctive nature in the exchange of intangible and inalienable goods, leads to clustering of industries mainly due to the advantages in exchanging tacit information which is a essential for maintaining a continuous process of innovation. It is this that has led to the emergence of centres of excellence in form of cybercities like Bangalore and Silicon valley. This in turn has made the location of business and economic activity a fundamental topic of international business research - to analyse the potential increasing returns and agglomeration benefits of the

economic integration we need to take into account the realities of international business factors such as labour mobility, institutional myopia, political uncertainties. But the issue of location brings together various economics as well as non-economics literature including: geography, complexity theory, history and path dependence.

The location of corporations has become a crucial factor in economics and business success for cities, countries and regions. Krugman (1991a, 1991b, 1998a, 1998b) has been the researcher most responsible within international economics for advocating a branch of research known as the, “new economic geography”. This relatively interdisciplinary area of research incorporating complexity theory, international economics and economic growth theories, and geography have begun to show how historical accidents and certain underlying factors can lead to dramatic creation or disintegration of economic activity. This research has not only relied on the latest developments in economic theory, but also the earlier European works in geography and regional science of Weber (1909); Christaller (1933); Losch (1940). Although there has been a certain interest within international business on the existence of clustering of industries (Porter 1990), the existence of such networks and clusters have not been fully integrated into the growing research in the new economic geography, which have begun to provide the underlying reasons for the process that such networks and clusters can help to create cities, countries and regions.

As the pace of globalization increases and most activities become increasingly mobile, firms can split their production choices among locations, as well as being able to supply more distant markets and customers. Competition between the various states for attracting investments within India has further added to the urgency of further research on such issues of the new economic geography (Sapir 1996; Krugman

and Venables 1995; Krugman 1998). The fact that a particular firm's location decision may in turn be determined by the location decisions of other firms, and the aggregated benefits of the location make it potentially a crucial area of international business research. This is especially the case, because if indeed such geographical factors are driving foreign direct investment and firm decisions towards location and strategy, this has substantial implications for public policy and the role of the state towards such firm decisions (Lenway and Murtha 1991).

The purpose of this chapter is twofold. Firstly, we hope to integrate the rapidly expanding literature in the new economics geography, which includes developments in international trade (Krugman 1991a); growth theory (Romer 1986); economic development (Stiglitz 1994) with the research agenda of international business. These developments in several areas of economics have moved away from traditional neoclassical economics of perfect information and perfect market mechanisms, towards imperfect information, imperfect competition and complex interactions among the state, markets, and society. Thus, the substantial results of this economics research needs to be more closely intertwined with international business frameworks.

Secondly, we focus on how the results and frameworks of this new economic geography can be applied to the economic developments in India. We analyse how the results of economic geography need to take into account the issues of "labour mobility" in order to fully comprehend the relevance for international business research. The lack of labour mobility, which has political, social and psychological foundations could work in opposite directions as the economic effects of geography, agglomeration and increasing returns.

Location and Geographical Advantage:

Research on geography, location and economic success have confirmed the expectation that market access and transport networks are crucial factors in economic success. More recent research has shown that economic growth rates and income levels are substantially higher for countries that have a high proportion of the population near the coast near one of the major economic regions of the United States, European Union and Japan (Gallup and Sachs 1998). The new economic geography shows that geographical advantage is greatest for an intermediate level of trade costs. For example, there will be an initial clustering in a center of firms to reduce trade and transportation costs, i.e. centripetal forces, but as these costs decrease, firms tend to reverse the flow and scatter towards periphery regions, i.e. centrifugal forces (Krugman 1991a, 1991b, 1998).

Overall, the key determinant of geographical advantage is the ease of interaction and exchange with major other players, such as consumers, suppliers, information and technology. Such interactions are necessary for backward linkages such as the firm purchasing from others in the region, and forward linkages such as the firm supplying parts or training workers (Krugman and Venables 1995; Gallup and Sachs 1998). The tug of war between the twin forces of clustering and locating in one place versus separating out into several areas has been the crucial areas of research in the new economic geography. The clustering towards the center, or centripetal forces is given by factors such as market size effects, concentration of highly skilled labour; whereas the opposing centrifugal forces that lead to a scattering of firms are driven by the rents and costs of land and the immobility of labour (Krugman 1998; Krugman and Venables 1995).

Neoclassical economics generally assumes a rational maximizing behavior among various actors in the economy. Thus the path dependency, historical accident aspects of economic geography have more similarities to evolutionary biology (Krugman 1998). In evolutionary biology, players in the business environment can make myopic choices based on past behaviors, the behavior of others, or due to historical precedent. The well known article by Knickerbocker in international business of course discussed the tendency for multinational enterprises to follow into areas, countries, regions that other multinational enterprises have pursued in the past. But the new economic geography as well as the new economic growth theories show that this type of oligopoly effect can be further enhanced or magnified due to increasing returns effects (Arthur 1994; Krugman 1991; Romer 1986). Thus, the oligopoly effects of following rivals into the same new markets, countries, regions becomes much greater and can fundamentally change the development of areas through the interaction of related players.

Economic geography's main focus has been the cumulation or agglomeration process of firms that decide to locate or conduct business in a particular location, country, region (Krugman and Venables 1995; Krugman 1991, 1998a; Audretsch 1998). This means that one region that has a slightly greater number of successful corporations can help to create a self-reinforcing (Schelling 1978; Arthur 1994) type of aggregate effect where larger markets are created, encouraging more suppliers to work in the region, and further reinforce the various positive effects (Audretsch & Feldman 1996; Audretsch & Stephan 1996). In the models of traditional neoclassical economics, firms having perfect information will rationally anticipate the future

location of various other firms, and thus make rational decisions that may or may not lead to such agglomerations.

This is where traditional neoclassical economics and the new economic geography begin to diverge in their analysis and frameworks. The relevance of this new research on economic geography to international business is that like international business, the new economic geography takes into account the realities of firm decision making. Such realities of the international business environment include imperfect information, myopic decisions based on Knickerbocker type oligopoly effects, and lack of forward-looking decisions about future firm and industry concentrations.

An Application to India:

There is a need to analyse India through the conceptual frameworks of federalism. As analyzed by Weingast (1997), there are two generations of research on federalism. The first generation, similar to neoclassical economics has assumed that both firms and governments are black boxes, that will treat their shareholders and citizens benevolently. These earlier works showed that the decentralization from federalism would allow more informed decision making at the local government level, and that competition among various local and regional jurisdictions would allow citizens to choose according to their preferences (Tiebout 1956; Oates 1972).

The more recent, second generation frameworks of federalism have taken into account the developments in social science research in the theory of the firm, and the various incentives problems that separate manager and shareholder interests. In an analogous fashion, these more recent works show that there is no natural reason for

political officials to necessarily further the preferences and interests of the citizens, although at the same time, there is no need to assume a necessarily malevolent government and political institutions (Olson 1965; North 1990; Weingast 1997; Kornai 1986; Inman & Rubinfeld 1997). This second generation of research thus takes into account the complexities of imperfect information, monitoring, and potential misalignment of interests between citizens, political officials and political institutions. The foundations of a successful federalism such as that of the United States is seen to be a state that rewards economic success, as well as punish economic failure; for example, Kornai's (1986), "soft budget constraint" showed how this provided incentives for the state to bail out inefficient firms or failed projects in Eastern European countries. The ability to reward and punish is dependent on the state making credible commitments to market; providing the central government with less information and power can increase the credibility of the federal government's commitment to economic rights and to the efficient functioning of markets forces (North 1990).

Competition among local governments prevent a particular government from not acting in the interests of its citizens. Under federalism, a local government that bails out inefficient firms, will lead to mobile resources leaving for other local governments and regions and will also find it difficult to attract future resources. Buchanan (1995) has analysed in detail how the rent seeking by the New Jersey government of the corporations headquartered in the state, led to a shift of mobile resources, and to New Jersey being replaced by Delaware as center of major corporations. The major potential problem with federalism is that of redistribution of

wealth and resources; lack of a centralised determined redistribution policy can lead to increased inequality across regions, as in some of the American southern states.

Thus relative to the United States, there is much less labour mobility in India. Second, is flexibility of wages and prices. In India, just as there has been relative immobility of labour, there is also rigidity in wages and prices. This inflexibility also has social and institutional causes, for example, that Indian industry is based on a mis of stakeholder values, or a tendency to measure economic and business performance through multiple criteria and shareholder values. Rather than using the prices of shares and the evaluation of the stockmarket for business and economic performance as in countries such as the United States, large segments of the Indian industry rely on banks, insurance companies, government, and employees to provide a multiple stakeholder evaluation of success, in a similar way to Japan, but leading to greater rigidity in wages and prices (Albert 1991; Choi 1994; Fruin 1992). Thirdly, is a need for a mechanism to transfer fiscal resources to the country or region experiencing the asymmetric shock. Such stabilising transfers may be a policy area where the India may be relatively effective, especially since the India has been undertaking such transfers to relatively lower income states to reduce horizontal fiscal imbalances which arise due to differing levels of development (Ahluwalia and Little, 1998).

McKinnon (1995, 1997) has pointed out that one crucial aspect of the system of federalism in the United States is that the local government are constrained in their borrowing, since their expenditures are not backed by the U.S. central bank. In contrast, in India, since each state has albeit limited tax raising powers, it creates the possibility that they will bail out loss making firms in the state (Ahluwalia and Little, 1998). This is especially true of the large and inefficient public and private sector

enterprises which rely on huge loans from development banks rather than stock markets for their capital financing

U.S., India and Economic Geography:

In terms of the more economics driven aspects of the new economic geography and location theory research, the continuing integration within India provide an excellent sample to apply empirically these new theories (Amiti 1998). The new economic geography literature (Krugman and Venables 1995; Krugman 1998a, 1998b; Venables 1996) extends the earlier new international trade literature (Krugman 1979; Ethier 1982) by showing that international or inter-regional demand differences can be caused by either the mobility of workers, labour or the mobility of firms. This leads to a combination of upstream and downstream agglomeration effects and clustering helping to create increased concentration of economic activity in a particular region.

The existing empirical works predict that over time, there will be greater specialization and geographical concentration in countries or regions that have access to large markets and to export those goods and services that have a home market bias (Krugman 1979; Amiti 1998; Sapir 1996; Greenaway and Hine 1991). But a premise of this chapter is that in India, this will not occur on a similar scale to the regionalization and geographical concentration that occurred in manufacturing in the United States before the First World War (Kim 1995). In the works of Kim (1995) and Hanson (1996), empirical research has shown that the regional specialization in the United States that began to increase rapidly through transportation after the First World War, began to slow down in the inter-war years.

There is a fundamental difference that need to be addressed before the new economic geography effects become a reality in India. This is the social, political, and psychological aspects of “labour mobility”. The concept of general labour mobility throughout the population, of changing the types of jobs but also the organization is fundamentally a phenomenon most commonly seen in the Anglo-Saxon countries such as the United States, Canada, United Kingdom, Australia (Albert 1991; Darity and Goldsmith 1996; Choi 1994). We analyse these social, psychological and institutional determinants of labour mobility and immobility in the following sections.

Labour Mobility I: Behavioural Factors

The potential barriers to labour mobility, which is the crucial factor in determining the success of the India economically, helps to illustrate the differences in thought from traditional neoclassical economics and the more, social psychology based approaches (Darity & Goldsmith 1996). This is the distinction between the neoclassical economics view of substantive human rationality, versus the procedural view, more common to other social sciences such as psychology (Darity & Goldsmith 1992, 1996). This procedural and behavioural view common to sociology and psychology believes that shock such as unemployment can influence the taste for working and searching for work, which in turn influences their ability to be re-employed and their productivity. These ideas were also discussed by earliest economic theorists such as Robinson (1933). India requires labour mobility across state and regional boundaries; moving employment across states is a shock to most Indians, who traditionally felt strongly about their regional identity, and a close

affinity to their regional culture, society, communities and institutions. Cyclical unemployment which will necessitate moving to new states, are both shocks which we believe can have the behavioural, psychological problems on productivity and taste for work (Darity & Goldsmith 1996).

Macroeconomics theories have also emphasised the importance of psychological factors influencing business investment, consumption, equity markets. However, such important factors are seen to be exogenous to the analysis; this also applies to models of productivity and the labour market. Traditional, neoclassical models of the labour market have tried to develop frameworks around factors such as demographic changes; structural changes that lead to mismatches between employers and employees (Blanchard & Summers 1988); insider versus outsider behavior (Lindbeck & Snower 1988); efficiency wages (Carmichael 1990). These frameworks accept the importance of psychological and social factors, but assume them to be exogenous to the analysis.

In contrast, according to behavioural approaches to unemployment, and other aspects of changes in the labour market, such shocks, affect workers' productivity through lower self-esteem, losing control, and being left out of the worker environment (Darity & Goldsmith 1996). In India, most workers have been accustomed to long term employment, in turn building social and community networks of relationships around this assumption and help develop their identity; the concept of mobile labour, and frequent employment changes more common in the United States is still relatively foreign to most Indian workers (Lambert 1963, Ramaswamy 1983). Akerlof and Yellen (1985) have shown how employment and unemployment are crucial experiences in a workers' life, leaving vivid and persistent

memories. Such psychological damage also affects former co-workers, who suffer from seeing their former colleagues leave their jobs. In India, the close knit social communities, especially magnifies this pressure, since the relations in communities tend to be both public and job linked, as well as private and family linked. Patel (1988) has investigated the consequences of closure of cotton mills in Ahmedabad, the town that was formerly known as the Manchester of India. Unemployed workers from these mills now depend on the informal sector for their livelihood; these workers have lost both the social provisions and the legal protection that lent respectability to their former lives. Employment related shocks, can thus lower the productivity and potential employability of not only the unemployed, but also the motivation and productivity of close knit friends and family members.

As reviewed in depth by Darity and Goldsmith (1996), neoclassical economic models of the labour market and unemployment, such as efficiency wage models assume that the fear of being unemployed will motivate workers to raise their productivity, and the notions of human capital are based more on physical, rather than psychological health. In a similar way, we believe that rapid economic development will require workers in India to try and better understand the skills, capability and value of working across state boundaries. This creates a conflict with their traditional psychological well being which is based on close knit communities, and relatively little job mobility. If as advocated by Greenwald and Stiglitz (1986), firms tend to be risk averse, especially under conditions of information asymmetry or incomplete information, then firms will especially avoid not only unemployed workers, but also workers from different states. Different cultural and social backgrounds, experiences with institutions, can all become factors for firms to become risk averse towards

workers of other states or regions or castes (Greenwald & Stiglitz 1986), especially after high periods of uncertainty through the economic convergence. Such behavioural realities need to be taken into account in analysing the economic convergence.

Labour Mobility II: Signalling and Sorting :

The second major area of labour mobility that needs to be analyzed in terms of economic geography and international business research is the issues of imperfect information, and the results on market signals (Spence 1973) and various aspects of hiring and screening processes in the labour market. Weiss (1988, 1995) in a series of papers, has analyzed the subtle importance of differences between market signals, and more unobserved abilities and qualities, an issue also analyzed much earlier by works such as Schelling (1969). Such signalling and screening models of labour and in generally overcoming imperfect information have been widely researched in economics in works such as Lazear (1981); Blanchard and Summers (1988). However, all these existing works assumed a mostly fixed, national, cultural, social, institutional background where such signalling and sorting were to occur. Weiss (1995) has discussed the differences between signalling and screening in the following way. In signalling, the informed party, such as a worker moves first; in screening, the uninformed party, such as the firm moves first. As analysed by Schelling (1960) in his classic work, the ability to coordinate and agree on points of salience, or focal points depends on such shared backgrounds and cultures. The rapid economic development in India raises the complex issues of labour that needs to move across different states, cultures, societies, institutions. Thus, we believe that the

potential economic benefits of rapid development needs to take into account the realities and complexities of such signalling and sorting criteria in analysing the issue of social mobility.

Indian Education System:

In such labour signalling and screening models, workers choose different levels of education, schooling; workers for whom education is a relatively lower cost, will tend to invest further in education, signalling to the market their quality and productivity (Spence 1973; Weiss 1995). The positive correlation between the ability and capability to learn, and in turn the length of investment in schooling or education is central to sorting results in the labour market (Weiss 1988, 1995; Cho & Kreps 1987). However, across different states of India, it is very difficult, if not impossible to compare the education system, and their relative merits and strengths, and what capabilities they provide within the labour market. This is mainly because of the fact that, other than a few centres of excellence that are run directly by the federal government, most educational institutions are under the control of the state government - the central government is only involved in dispersing some subsidies to the state governments and broadly overseeing the curriculum. In practice this has meant that there are vast differences in the standard maintained by the various educational institutions, with a very large correlation between the level of development of each state and the standard of the educational institutions within it.

Altonji (1993) has shown that in the United States, the earnings are affected by a composite measure of secondary school scores, self-appraisals of ability, and scores on certain standardized tests. Thus, even if there are no structural differences in the

education system in the various states in India, the differing quality of education makes it extremely difficult for screening, and signalling to occur in the labour market, as existing economics works such as Lazear (1981); Blanchard and Summers (1988) have analyzed in an American, single nation, culture, institution context.

Human Capital and Unobserved Traits:

Recent research in the American context such as Weiss (1988, 1995); Card and Kreuger (1992) have shown that wage rates and labour mobility can be attributed to “unobserved” traits or capability of workers. For example, workers who had invested in longer periods of education, had greater perseverance towards their jobs, and thus tended to be more productive workers. Such perseverance is important because firms cannot always perfectly observe whether high performance is linked to ability, effort or luck (Akerlof & Yellen 1985). The willingness to work harder than others, can also be an observed characteristic that can be linked to rewards such as promotions, compensations later in their career (Milgrom & Roberts 1992).

In terms of the importance of diversity of the environment, Card and Kreuger (1992) showed that within the United States, workers from states with more effective schools, such as smaller class sizes, had higher returns to education. The critics of such sorting models (Weiss 1988, 1995) of labour markets predict that firms will find cheaper ways to find out about workers, or test for them directly. This has proven to be difficult even in the United States context (Card & Kreuger 1992), and will be substantially more difficult in the EU context. Problems of language, culture, testing systems, measurement of capabilities all raise substantial difficulties in such standardization of capability, signalling and screening in India; however, the pure

benefits of economic convergence, assume that such standardization exists, thus allowing the labour mobility requirement crucial for geographical economic integration within India.

Human capital models divide human capital into general and firm specific and assume that the difference between a worker's productivity at a firm where the worker has acquired tenure, and that worker's potential productivity at another firm, is somehow shared between the worker and the firm. The complexities of employment, culture, society, institutions across India make it difficult for a worker and a firm to share such differences. Thus, even more than in a relatively standardized education system in the United States, companies in India need to assess the possibility of using sophisticated sorting models (Weiss 1988, 1995) to discover the unobserved traits, and hidden capabilities of workers from different states, in order to create the social mobility that is fundamental to the success of the economic convergence. As Weiss (1988, 1995) has discussed, such sorting models however have not been widely accepted even in the labour market research within the United States, because of assumption that the market would remove such inefficiencies, and also because such sorting is mistakenly grouped with credentialism. However, given the complexities of India, and the urgencies of economic convergence, Indian companies may need to accept certain aspects of credentialism, including the acceptance and standardization of certain education qualifications, for example, MBAs, master of business administration degrees.

CONCLUSIONS

Given the distinctive nature of the exchange of intangibles in knowledge based industries leads to clustering, location of business and economic activity has become a fundamental topic in international business research. Although there has been a certain interest within international business on the existence of clustering of industries [Porter 1990], the existence of such networks and clusters have not been fully integrated into the growing research in the new economic geography, which have begun to provide the underlying reasons for the process that such networks and clusters can help to create cities, countries and regions. The fact that a particular firm's location decision may in turn be determined by the location decisions of other firms, and the aggregated benefits of the location make it potentially a crucial area of international business research. This is especially the case, because if indeed such geographical factors are driving foreign direct investment and firm decisions towards location and strategy, this has substantial implications for public policy and the role of the state towards such firm decisions [Lenway and Murtha 1991]. This chapter advocates a greater mix of the research done in the new economic geography with international business research.

We applied this to the India to show that the potential increasing returns and agglomeration benefits of the economic integration need to take into account the realities of international business factors such as labour mobility, institutional myopia, political uncertainties. International business research has much to contribute to our better understanding of a rapidly integrating states at different levels of development in India. However, international business will need to incorporate a broader range of

interdisciplinary frameworks from economics, psychology, sociology, law, in order to analyse all the complexities of integration.

There are two areas of further research. Firstly, a further analysis of the different incentives offered various states, including competitive tax regimes, on the location of industries. Secondly, there is a need to address the public policy and governmental issues concerning the benefits of agglomeration effects as advocated in the new economic geography research, and how in order to achieve these benefits, there is a need to take into account the other non-economic factors such as institutional setting, social and psychological aspects of labour mobility; this paper began elements of this process by applying the frameworks of the new economic geography and international business to the continuing economic integration within India.

We applied this to the India to show that the potential increasing returns and agglomeration benefits of the economic integration need to take into account the realities of international business factors such as labour mobility, institutional myopia, political uncertainties. International business research has much to contribute to our better understanding of a rapidly integrating states at different levels of development in India. However, international business will need to incorporate a broader range of interdisciplinary frameworks from economics, psychology, sociology, law, in order to analyse all the complexities of integration.

INDIAN SOFTWARE INDUSTRY

Introduction:

In chapters 5 and 6 we have analysed the nature of exchange in knowledge based industries and also some of the factors that leading to clustering in these industries. Knowledge can be broadly classified into technological and non-technological knowledge. The software industry exemplifies technological knowledge - in this chapter we analyse the Indian software industry in the context of the evolution of technological knowledge. We then analyse the growth of the city of Bangalore as an example of clustering of firms in a certain location.

A number of studies in the recent past has identified information technology as one of the most crucial technologies affecting economic growth in the developing countries (Kaplinsky 1987, Bhatnagar 1992, World Bank 1992). In the information technology industry, the global software and software services is worth more than \$900 billion in 1998, with new applications constantly being developed for a variety of sectors (Kular, 1999). For developing countries to enter into the information technology production complex, software production is the best entry point. This is mainly because there are much lower entry barriers in this sector, it is less capital intensive and more labour intensive, and it could lead to many positive externalities. Thus it is imperative that developing countries promote strong and indigenous software industries (Fialkowski 1990) which help adapt software technology to suit their particular local needs.

The global software industry has evolved three decades; this evolution can be divided into four eras, to help locate the different stages of development of the industry in the different parts of the world (Schware 1995, p. 419). According To Schware's typology, countries go through the various eras in the evolution of software development activities at different times, depending on factors such as their level of development, and the technological advancement of countries indicated by the presence of high technology industries. In era 1, the early seventies, there as a shift from software being an integral part of hardware to the unbundling of software. In the late seventies, era 2 in Schware's typology, customised software was becoming the norm, as companies needed software to address specific functions. In era 3, there was the development of 'shrink wrapped' software packages like the Windows operating system, which are primarily used on personal computers allowing the user to work independently. Marketing is an essential aspect of success in this era, and therefore, so is access to funds to be able to finance large scale marketing. In era 4, companies across the board recognise that software contributes the key element to a complex industrial product, and try to improve or enhance their existing products using embedded software development. In any country, at any given time, there are overlapping eras. The time sequence presented above reflects the experience of developed countries which are now in eras 3 and 4, but most developing countries, in Schware's view are between eras 1 and 2, and are about 5 years behind in technology and skills. In this chapter we analyse the evolution of the Indian software industry and the factors that led to the emergence of Bangalore as one of the leading technopolis in the world.

Indian Software Industry:

India has been in the forefront of developing its own software industry since adopting a software policy in 1970; this policy has primarily focused on promoting exports. The success of this policy, exemplified by the phenomenal growth in exports, has challenged the argument that a strong domestic oriented software industry is required to build up software production skills and capabilities necessary for exports.

The software policy in India, has broadly followed the trends in the overall industrial and technology policy in India. Since independence in 1947, the importance of technology for modernisation has been stressed, with the Scientific Policy resolution adopted in 1958 emphasising the need for self-reliance and building up of local technological capability (Ahmad 1985). This stress on self-reliance has meant that in the software sector, till the mid-90s, the government has been a reluctant and hesitant liberaliser and policies have been geared to ensure that goods are only imported if they were not being leased out for use in the domestic market. Thus in the software sector, after some initial liberalisation in the late 1970s, there was more substantial liberalisation in the mid-1980s, a period of relative stability, then renewed liberalisation from 1991. After an exhaustive study of the Indian software industry, Heeks (1996) has summarised the situation in the mid-1990s in the context of various policy areas as follows:

Liberal	Industrial entry and production capacity
Fairly liberal	Software imports and export incentives
Partly liberal, partly controlled	Foreign collaboration, hardware imports
Not very liberal	Finance, training, infrastructure, legal regulation, marketing assistance, software procurement

Source: Heeks (1996)

Table 7.1: Policy regime in the Indian software sector

The main thrust of India's industrial policies has been to promote growth for the domestic market, and there is general agreement that they have held back the development of exports (Ahluwalia & Little, 1998) . The main difference between the software sector and most other industries has been the focus on exports; it is the only Indian industry that has been export oriented in practice as well as in official policy (Sridharan 1989). In fact, the government has specifically targeted the sector as an 'export thrust area' with the government setting a target of 60 per cent value addition, compared to most other exporting industries. The hope was that Indian software exports would overtake all other commodity exports in the service sector (Mukhi & Chellam 1988). This focus on exports has led to the neglect of the domestic market, and some have argued that this has been detrimental to the emergence of a viable domestic software industry (Kohli 1991).

The policies of liberalisation adopted by the Indian government over the past decade and the ongoing globalization of the information technology industry are having a great impact on the business opportunities available in the IT sector in India. A enormous pool of skilled and relatively cheap software professionals located in a stable parliamentary democracy with an established legal system, vibrant capital market and mature financial system, increasingly, makes India the preferred location for software development. As indicated in Table , in a recent study of ten countries, India has the distinct advantage in terms of providing the enabling factors for the development of software industry.

	India	Russia	Europe	Malaysia	Singapore	China	Japan	Israel	Ireland
Good general engineering education system	+	+	+	-			+	+	
Specific software and systems training	+			-			+	+	
Large pool of capable programmers	+	+	+	-	-	+	+		
Limited (non-IT) opportunities for engineers	+	+		-	-		-	-	-
English language competence	+	-	-			-	-	+	+
Government policies on investment	+	-		+	+	-	+	+	+
Communication infrastructure	+	-		+	+		+	+	+
Entrepreneurial know-how	+	-			+		+	+	+
Foreign corporate investment	+	+			+	-	-		+

Notes: Strong positive: +
Strong negative: -

Source: Stanford Computer Industry project

Table 7.2: Country comparison - India Advantage

It was in the late 1980s that the developed countries began entering era 4 and the industry became more internationalised. Increasingly, companies began to focus on their core competence and intensified their efforts at outsourcing all or part of their software development. Many firms found outsourcing offshore software development a viable alternative to in-house development because of lower cost, inability to hire and retain qualified programmers at home, and growing need to move swiftly from project initiation to systems installation (Patane and Jurison, 1994).The manpower shortage is highlighted by estimates that the gap between the supply and demand for programmers in the United States had risen to about 190,000 and world-wide there were over 900,000 programming jobs waiting to be filled (Baker, 1997, p. 46). India and Ireland have been the main beneficiaries of increased outsourcing, with Israel and Hungary being other popular destinations.

Reflecting these trends, between 1980 and 1996 exports expanded from \$4 million to over \$1 billion, nearly 250 fold growth (NASSCOM 1998). The

compounded annual growth rate between 1992-93 and 1996-97 was over 48%. As nearly 60% of the exports were directed to the US market, the devaluation of the Indian rupee vis-a-vis the dollar meant that the growth in real terms was a lot less. Between 1987-93, nominal growth was 46.4% while real growth was 28% per annum (Sen 1994).

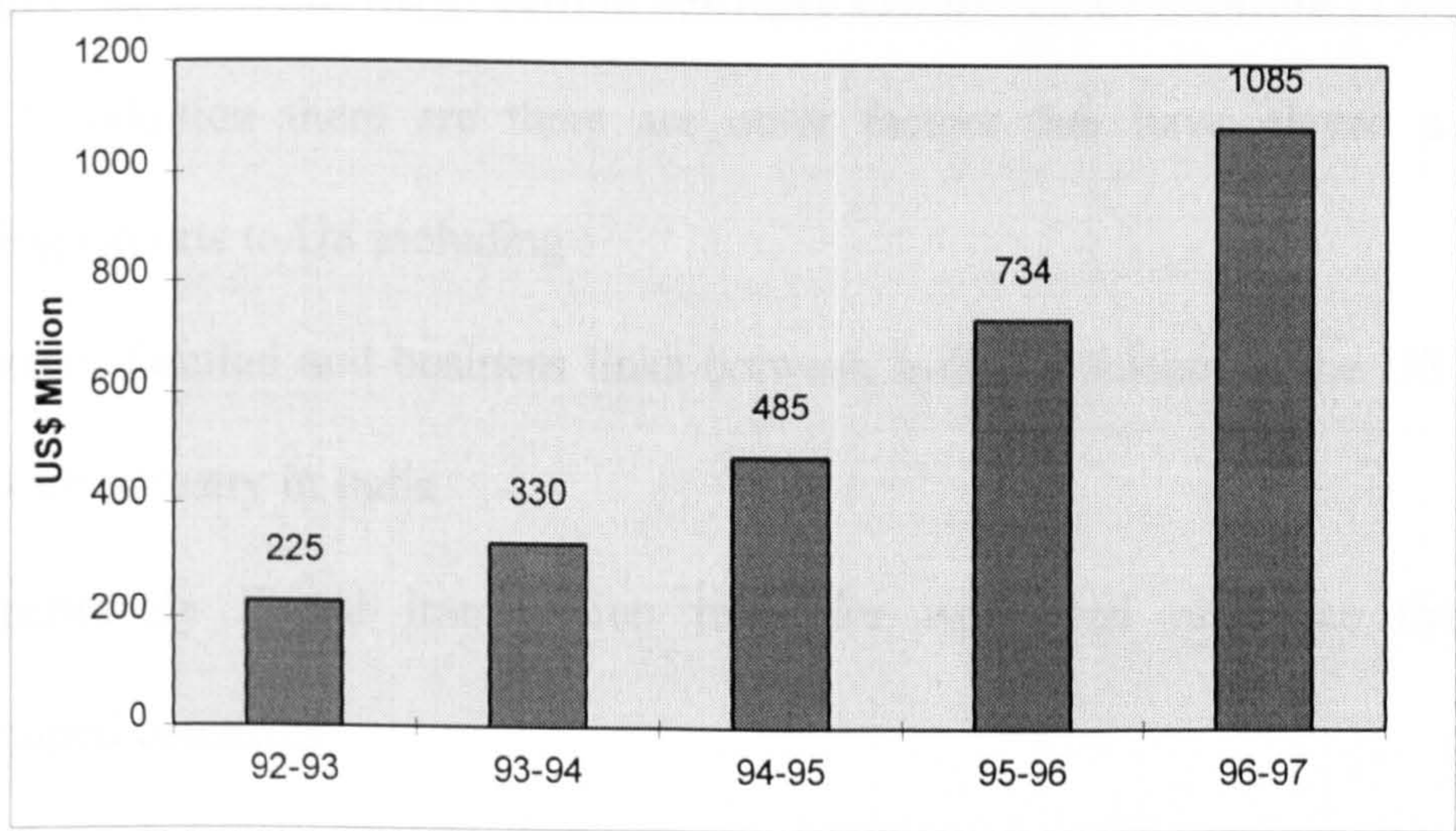
<i>Year</i>	<i>Policy Action</i>	<i>Details</i>
1972	Software Export Scheme	Hardware imports were permitted for the purposes of software development on the condition that the price of the hardware was recouped through foreign exchange earnings within five years
1976	Further liberalisation in the software industry	Hardware import duties reduced from over 100 percent to 40 percent; faster clearance of software export applications; software exporters could take advantage of export incentives including locating of EPZs; non-resident Indians allowed to import hardware for the purpose of software export with a 100 percent export obligation
1981	Stricter controls on imports	Import duties on hardware were raised but firms were allowed to use the hardware for the development of domestic software as well as for exports; software exporters could also import "loaned" computers
1984	New computer policy	Import procedures for hardware and software simplified; import duties for hardware and software reduced from 135 percent to 60 percent for software; software was recognised as an industry and licensing procedures were simplified; improved access to foreign exchange for software firms; income tax exemption on net export earnings was reduced from 100 percent to 50 percent.
1986	Computer software export, software development and training policy	Imports of hardware and software further deregulated, anyone could import software at 60 percent duty. 100 percent export oriented software production units permitted to import hardware duty free; Indian firms allowed to sell foreign software as distributors
1988	Software Technology Parks of India scheme	Creation of software technology parks for the production of software for export
1991	Liberalisation of the Indian economy	Devaluation and partial convertibility of the Indian rupee, abolition of foreign exchange for travel tax; reduction in telecommunications charges for satellite links; duty free and obligation free imports of telecommunications equipment in the STPs; export obligations could be met from earnings from on-site services
1992 -	Recent tax policies	Software exports brought under the Income Tax Act exempting exporters from income tax; confirmation of this status occurred on an annual basis until 1995 when it became open ended; income tax exemption offered to EPZs and 100 per cent export oriented units was extended to software exports from companies taking part in these schemes which were established in or after 1993; import duties on software reduced in 1994 to 20 per cent for applications software and 65 per cent for systems software and in 1995 to 10 per cent for both

Source: Asma Lateef (1997)

Table 7.3: Policies that affected the Indian software industry

Indian software industry’s export profile:

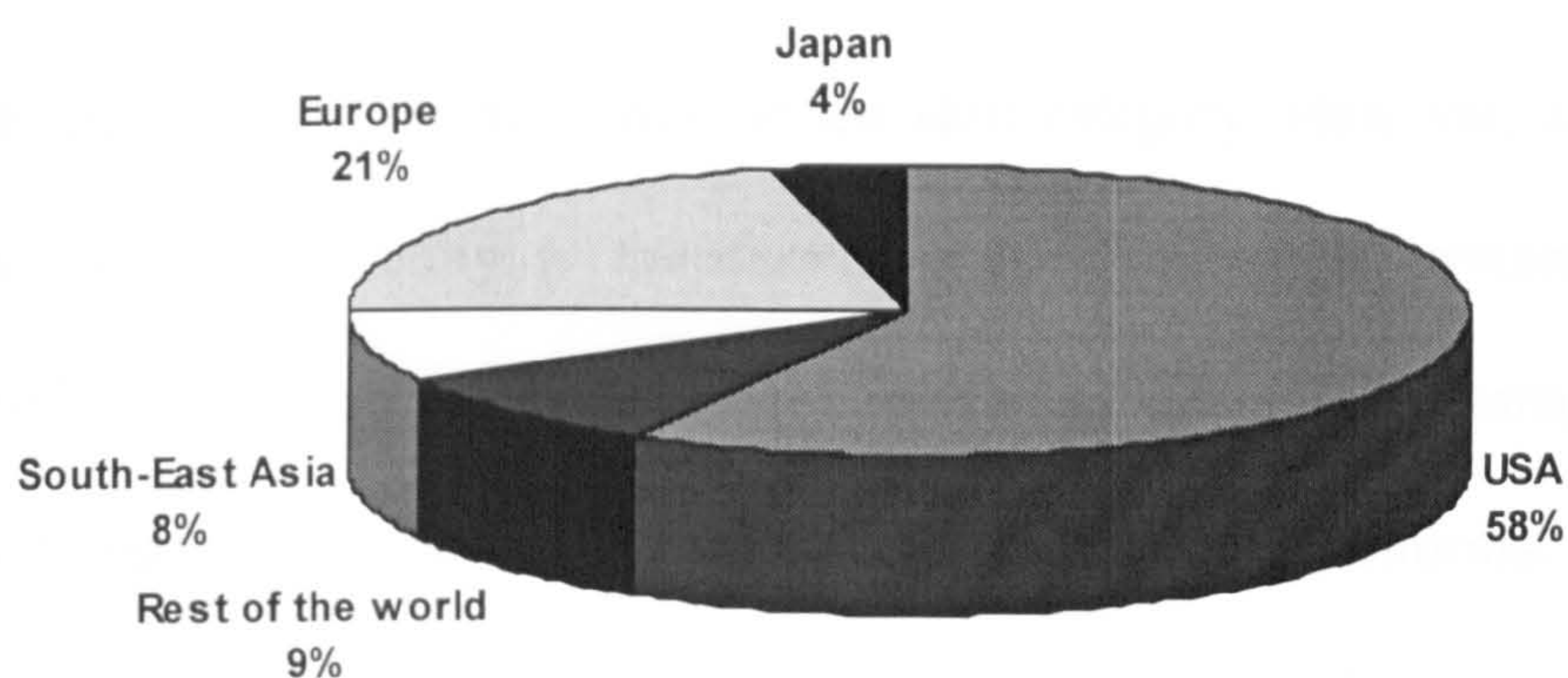
The Indian software industry is estimated to be worth US\$ 1 billion with the potential to become the largest in the world. The industry, with the help of foreign and domestic investors, has been growing at a phenomenal rate, with a massive growth of 140% registered in 1997-98; in the same period the exports from this sector has risen 46%. In the past seven years exports have spiralled from \$ 100 million to \$ 1.8 billion in 1997.



Source: NASSCOM (1998)

Figure 7.1 : Growth in Indian software exports

As American information technology firms and financial services companies have moved much more quickly than their European counterparts to take advantage of offshore programming (Tilley 1990), and it is by far the world’s largest market, it is not surprising that the US market has dominated Indian software export market for more than a decade.



Source: NASSCOM (1998)

Figure 7.2: Breakdown of Indian software exports by destination (1997-98)

In addition there are there are other factors that have played a role in promoting exports to US including :

- extensive familial and business links between Indian residents in the US and the software industry in India
- comparatively liberal immigration rules for work and residence than most developed countries

In line with Schwabe's analysis of most developing countries being in era 1 and 2, the bulk of Indian software exports has been in the form of professional services, much of which is actually carried out at the client's site overseas, rather than offshore in India; onsite services generally comprises low value work, typically coding and testing. In 1997-98, 58.7 % of the export contracts were carried out at the client site, while less than a third of the export contracts was offshore services (NASSCOM 1998). As the number of multinationals investing in this sector in India increases, the economy is further liberalised, infrastructure is improved, the off-shore component of the exports is expected to increase further. But the nature of work, in case of offshore contracts, has not necessarily undergone fundamental transformation;

the work remains similar to on-site services as a large chunk of the off-shore work includes data entry, the lowest in the skill category. However, a certain amount of managerial capability is transferred as local managers oversee several projects. Additional skill are generated through systems integration, managing facilities, and working on software conversions for multiple hardware platforms.

Analysis of Indian software industry:

The Indian software export industry is dominated by a few large companies. Of the 430 companies that currently export software from India, about 52 of them exported software valued at more than 100 million, as against 5 companies in 1991-92. The top 20 software exporters accounted for almost 60 % of the total revenues of the industry, with the top 10 firms listed below accounting for about 40% of the total revenues.

Rank	Company	Exports 1996-97 <i>Rs. Million</i>
1	Tata Consultancy Services	6068.80
2	Wipro Ltd.	2588.40
3	NIIT Limited	1612.50
4	Pentafour Software & Exports Ltd.	1594.26
5	Infosys Technologies Ltd.	1267.10
6	Tata Infotech Limited	1060.00
7	Satyam Computer Services Ltd.	891.80
8	International Computers India Ltd.	850.20
9	Patni Computer Systems Ltd.	848.80
10	DSQ Software Limited	803.99

Source: NASSCOM (1998)

Table 7.4 : Top 10 Indian software export firms

The large Indian software firms do higher end customisation and reengineering using the most current technology while the smaller companies tend to do lower end

customisation and basic programming. Companies generally gain market share by effectively signalling their abilities to the overseas customer and convincing the potential clients of their abilities (interviews). The largest companies were often the first to start international work. They were “pioneering brands” (Schmalensee 1982) which established a reputation as quality companies that were capable of doing good work for their clients. This gives later entrants a disadvantage because the overseas customer must invest search effort in learning about the new company’s quality nad abilities while they already know about the established incumbent in the industry. Thus most new entrants try to differentiate themselves form the current leaders so that a sizable number of foreign customers find them pioneering and not following (interviews). In order to penetrate the market, the new entrant either provides a higher quality product or lowers the resources that the foreign companies spend on learning about quality through signalling. Increasingly, the large companies have made large investments to disseminate information about themselves and to signal to new clients. This includes the formation of branches and numerous joint ventures, and constant upgrading of the knowledge base to keep up with the latest technology. The table below reflects the efforts of the largest and oldest Indian software companies to make clients abroad aware of the quality of their work in India.

Company	No. of employees	Years open	No. of collaborations	No. of agency operating	No. of branches
Tata Consultancy Services	4400	27	0	6	43
Tata Unisys Ltd.	1598	17	3	6	30
Wipro Infotech	1789	14	2	0	28

Source: Malhotra (1995)

Table 7.5 : Signalling by “pioneering” firms

As highlighted in table 7.3, other than the overall stability in the economy, a Anglo-Saxon legal system, the tightening of the intellectual property regime, and the fast growing domestic market with the potential for accelerated growth, there are specific business advantages in developing software in India. These include:

Low cost of operation: Whilst many countries offer low cost talent and infrastructure, none is as compelling as India when cost/benefit is considered. The total cost of operations in India is about one-fifth or one-sixth the cost incurred in USA; even after overcoming various bottlenecks such as inadequate infrastructure, the expense of operations is 30-40 percent cheaper than in other South East Asian countries (interviews).

Leveraging off the skills of Indian programmers and infrastructure has yielded a number of multinationals savings in the range of 50-60%. Studies suggest that in the mid-1990s, salaries for programmers and systems analysts were 4-5 times lower in India than in the UK and 6-8 times lower than in the United States (Heeks, 1996, pp. 115-16). However, the wages have been steadily increasing at over 20 per cent since 1990 and it rose by about 21% in 1996. Much of this increase can be explained by the tight labour market and the high turnover rate which in 1996 came down to 17.2% from the earlier high of 25% in 1992 (Heeks 1996, NASSCOM 1998). This difference in wages has prompted a number of companies to develop their software in India through collaboration, setting up a subsidiary or an offshore development centre. While the smaller companies have usually outsourced or collaborated with Indian companies, the bigger companies like Microsoft, Philips, Oracle have their own development centres in India. Typically, these companies design their products in the home country, and have the development done in India according to their

specifications. But, in the recent past, a number of companies have acknowledged the design skills of some of the Indian engineers and made huge investments in R&D facilities in India.

Enormous talent pool: India has the second largest English speaking scientific manpower pool in the world. There are over 1,600 engineering colleges, technical institutes and polytechnics which ensure a steady supply of well educated technical personnel. According to one estimate over 65,505 IT professionals with varying skills enter the workforce every year (NASSCOM 1998). The five Indian Institutes of Technology (IIT), along with a few other institutes have standards that are on par with the rest of the world.

	No. of Institutes
National Institutes (IITs & IISc)	6
Engineering colleges	32
Degree Colleges at Universities	320
Diploma Colleges	788
ITIs (Computers)	596
Total	1742

Source: NASSCOM (1998)

Table7.6: Educational institutes teaching courses related to computers in 1996

High quality: Intense competition has fostered a keen awareness among Indian software companies of the importance of delivering world class quality in the international market. Of the top 200 Indian software companies, 127 companies have already acquired ISO 9000 or equivalent certification, which is the maximum number of ISO certification in the world. Motorola’s Indian subsidiary is one of the few in the world that is an SE1 development company. Increasingly, companies are outsourcing projects to India mainly out of quality consideration, and not just due to cost

consideration. The ability of the English speaking software engineers to work on a wide range of platforms and languages has been very helpful in ensuring that the work carried out in India meets world standards. The high quality of the infrastructure in the various technology parks that the government has also helped in the improving quality.

Government incentives: The Indian government has adopted a very liberal foreign investment policy in the software sector, with repatriation of investment and profits freely allowed. There are no restrictions on foreign collaboration or foreign technicians working in India. Special incentives are given to investors setting up units in the various technology parks, export zones that have been set up in different parts of the country. Some of the incentives are:

- Foreign equity up to 100% permissible
- Duty free imports of most imports (with a few exceptions), including capital goods is permitted
- Exemption from payment of corporate income tax for a block of five years in the first eight years of operation
- After the five year period, profits on exports will continue to be exempt

Various routes to developing software:

Depending on their strategic goals, multinationals have chosen differing routes to develop software in India. Most of the big multinationals have set up their own R&D facilities; for example recently Microsoft set up a facility in India, its third after the U.S and Israel. Smaller firms have gone into collaboration with Indian software

firms. At the same time a number of firms have entered into strategic alliances with various universities, especially the various Indian Institutes of Technologies and the Institute of Science in Bangalore, to undertake research and development in the software sector. Amongst those firms which have done this are IBM, Oracle, Unisys.

The six OECD countries account for about 81% of software exports from India. Of this Europe accounts for about 20% of the Indian software exports. European companies have established operations in India, either with Indian partners, or on their own. These include Alcatel, British Aerospace, Daimler Benz, Bosch, Deutsche Bank, Siemens. The most recent software development centre was set up by Astra of Sweden which tied up with a Indian software firm, in a deal worth \$50 million on an annual basis, to develop a software package that will support the quality system for Astra's Medical operating systems.

Benefits of developing software in India:

- *Cost containment:* Profit from internationally competitive pricing
- *High quality:* Take advantage of a quality culture that is reflected in the large number of companies that are ISO 9000 certified
- *Timely delivery:* Utilise large project teams in India to meet tight schedules.
- *Trained manpower and quality educational institutions:* Have access to an enormous pool of trained manpower who have been executing software projects for international clients and develop ties with some of the leading technology institutes in the country.

Challenges facing the Indian software industry:

Indian software developers have been very successful in outsourcing software development projects from foreign firms, especially those based in the US. However much of this has been done through a model of “body shopping” or in other cases providing back-end development services to established international firms. In the latter model the Indian firm is a sub-contractor to a larger international firm. However, margins in this business continue to recede. International firms are also building their own software development shops in India, Israel further eroding profit opportunities. This requires Indian software firms to rethink the suite of services and products offered to generate higher value for customers.

Most industry observers feel that there are number of different alternatives for expanding value added or shoring up margins. These include:

Shift to Products:

Instead of just providing a software development service, it is important to shift to resellable products. Service based revenues are limited by the number of hours in a day. In contrast software products are replicable at low costs and resellable. These products may include specific systems such as those for reservations, hotel management etc. Increasingly firms are acquiring software templates which are then customised to the meet the needs of a specific company. A shift to products requires better knowledge of the customer’s needs and industry context for successful development (interviews). One mode of acquisition of knowledge is the partnering of consultant firms to a specific industry, or a joint venture for development of a product. The strategy should be to proactively seek a joint venture partner rather than become a subcontractor.

Shift to Higher Value Added Services:

Developing higher value added services include the sale of methodologies, business process modelling, workflow design services and systems consulting services. It is only recently that Indian firms have begun to acquire firms abroad to expand out into greater systems design and consulting services. Acquisition or partnering with select international firms can help to expand these higher value added services of business process redesign, work flow modelling and systems design to support these higher value activities. More importantly acquiring or partnering with existing firms in the market allows new entrants to leverage of existing brands.

Both the alternatives above suggest the need for developing more specialised knowledge of vertical industry segments as well as better marketing and promotions to develop “brand equity” that would goad the customers to pay a premium price for the product. To date few Indian firms have invested in building a brand identity in foreign markets, especially the United State or for that matter established expertise in specific vertical markets. To do so will require a change in the way Indian firms think of the global software market. They will have to change their investment in product research and development, marketing and public relations efforts, as well as hiring and compensation policies to acquire industry specific expertise or relations with customers.

Competing locations for software development centres:

Bangalore is the software capital of India - it alone accounts for over 57% of the total software revenue earned by the whole country. India has a total of 700 plus IT companies in the various software parks; of these 207 are in Bangalore of which many are involved in developing software. Arguably, there is a critical mass of

software companies, including 66 leading multinationals, in Bangalore for the growth to be sustained for the near future. In the 1997-98 alone, Bangalore attracted MNCs like Lucent Technologies, Sony India, Siemens Semiconductors, Ericsson Communication, and Samsung Electronics. But in the recent past, host of multinationals have decided to locate their investments in the city of Hyderabad. Amongst the reasons cited for ignoring Bangalore are infrastructure snags, overcrowding and government inertia.

Hyderabad is the city that is poised to give Bangalore a run for its cyberstatus. It is governed by an enlightened political leadership which has taken the initiative to bolster IT awareness, IT education, and IT usage in the state across all segments. Although there are problems with the infrastructure and power shortages, the pro-reform regulatory and political climate along with widespread plans to improve infrastructure and upgrade technical education, along with the pace and extent of reforms in terms of a responsive bureaucracy have attracted multinationals to the city. Hyderabad has other factors in its favour - its strategic location, relatively low real estate prices and an abundance of skilled labour. Amongst the companies that have homed in on Hyderabad in recent months are Microsoft, Oracle, and Citicorp.

There are other cities that are trying to attract investments in the software sector. Amongst those are Calcutta in the north-east and Madras in south India.

Cybercity Bangalore :

Bangalore has been identified as one of the ten top technopolis in the world; it has been described as “a gateway to new global frontiers” and “a harbinger of a new global labour force that works in cyberspace and that, like much of the world’s financial markets, operates beyond the reach of governments” (Stremlau, 1996, p. 158

and 154). Increasingly, the emergence of Bangalore has been recognised and has been the source of anxiety in the US concerning the long-term impact of competition from Bangalore and India as a whole (Madon 1997, Yourdon 1992, Wolman & Colamosca 1997, Wessel 1998). Bangalore has a host of factors that have played a critical role in its emergence as the software capital of India. The city has, historically, been regarded as a high tech city, located in the state of Karnataka which has had a long history of support for science and technology. After independence, India's first Prime Minister, Jawaharlal Nehru, sought to turn it into India's intellectual capital (Stremalau, 1996, p. 157).

Haug (1991) has identified five factors that play a part in the locational decisions of new software companies. These include labour availability, quality of life, infrastructure, proximity to previous employer and residence, and proximity to customers. Of these factors, given the changing nature of the industry and export profile of the Indian industry as it has evolved, the last factor is not of much relevance. Bangalore has emerged as the software capital of India primarily because of the prevalence of the other factors; the problems in Bangalore is caused due to the erosion of some of these factors.

The city has a highly talented pool of manpower, thanks to the Indian Institute of Technology, the Indian Institute of Science, Indian Institute of Management and the five regional engineering colleges that are located in South India. The state of Karnataka has 9 universities, 51 engineering colleges, 169 polytechnics and 35 professional training institutes, which turn out 25,000 skilled professionals every year. In the context of the labour intensive nature of the industry, especially at the lower end of the value chain, the presence of such a large pool of manpower is a

major attraction. In addition, the city has pleasant weather throughout the year which has helped woo people from outside to come and settle down here.

The dust-free environment and the intellectual pool of Bangalore led to the establishment, between 1956 and 1960, of large public sector undertakings like Bharat Electronics (BEL) and Hindustan Aeronautics Limited (HAL) in the city, along with national defence research laboratories. In addition, given the distance of Bangalore from India's borders, it was the ideal location for strategically sensitive industries like the Bharat Heavy Electronics Limited (BHEL) and the Indian Space Research Organisation (Sharma 1994, p.85, and interviews). This concentration of electronics and aeronautics industries led to the creation of forward and backward linkages. To exploit these linkages, in the last two decades, a number of private sector electronics companies have sprung up; given the close links between the electronics and the computer industry, the software industry in Bangalore can thus be seen as a natural offshoot of the prevailing conditions in the city.

It was this intellectual bank that helped Wipro Information Technology Ltd. in 1981 (now a part of Wipro Infotech along with Wipro Systems) when it designed the first Wipro Computer along with the Indian Institute of Science, a premier engineering research institute in Bangalore. Two years later, home grown IT giant Infosys Technologies made a very modest entry into Bangalore when it moved from Pune. But it was only in 1985, when the Rajiv Government announced the formation of Software Technology Parks, that the software industry in Bangalore gathered momentum.

Probably the most important investment in 1985 was that of Texas Instruments - executives from Texas instruments did groundbreaking work when they introduced

the idea of having a 100 per cent export-oriented satellite-linked project to source its software requirements from India. This was in the pre-liberalisation era of the Indian economy, when Indian software companies hired Indian engineers and sent them to 'body shop' in the US on Indian wages. To facilitate the venture, Texas Instruments not only brought its own earth station, set it up and even helped the government of India identify the right hardware needed for a direct satellite link meant for offshore projects. In setting up the project, the company had to go about getting as many as 20 clearances from various local, state and central government departments. Initially Texas Instruments did lower end software projects for its own use, and as its confidence increased, mission critical applications began to be designed in its Bangalore office. Nowadays, all of the software, databases and designs produced by Texas Instruments in India are exported to the United States for distribution. According to the Managing Director of Texas Instruments India, the company "has developed world class competencies in the area of DSP, signal/analog interfaces and the ASIC methodology, creating products that are at the core of Texas Instruments' worldwide thrust."

Digital Equipment India Ltd. was the first multinational hardware company to enter Bangalore; it is the only multinational company in the field of IT which went public. It was the first subsidiary of Digital USA which was not 100 per cent owned by the parent company (it holds 51 per cent, with the rest owned by the public and financial institutions), and listed on the stock exchange. After the merger Digital and Compaq world wide, the Indian company will become the biggest IT company in India.

The qualitative leap in the nature of the software industry in Bangalore occurred in 1991 when Motorola set up its research base in the city. At present a lot of MNCs like Oracle, Novell, Hewlett Packard, IBM, Philips contribute work which is critical to the parent company's overall business. Companies like Novell decided from the very beginning to provide a facility and environment exactly similar to their engineering setup in the US in terms of testing facilities, technical managerial skills. "Since Novell India Development Centre has total product responsibility for key Novell products, it is a centrepiece of Novell's engineering strategy; the philosophy of identical environment and infrastructure helps Novell leverage the Indian software talent."

The real flood of companies into Bangalore occurred between 1991 and 1998. Most of the large multinationals in the IT sector have a presence in Bangalore. A handful of companies run by non-resident Indians, like Aspect Development, Information Management Resources, Complete Business Solutions have establishments in the city. In addition, large Indian software companies like Infosys, Wipro and BPL Software, based in the city, have gone on to become global players. Of the top 20 software exporters in India, 14 are in Bangalore; and of the top 20 domestic software firms, eight are here. Total investments in terms of equity and loans are well in excess of Rs. 35 billion in this industry in Bangalore, where over 20,000 software developers are employed. The turnover of the software industry in the state of Karnataka (Bangalore is the capital and most of the industry is concentrated here) was around Rs. 18 billion during 1996-97, and the expected turnover by the turn of the century of Rs. 50 billion.

Till recently, the attractive real estate prices were also a winner. When Infosys moved into Bangalore in 1986, it paid a paltry rent of Rs. 6 per square foot; today after skyrocketing to Rs. 70 in 1996, it has levelled off at Rs. 50-60. This is still way below the rates in major metropolitan areas of India like Delhi and Mumbai.

City	No. of companies
Mumbai	115
Bangalore	87
Delhi, Gurgaon & Noida	70
Hyderabad	37
Chennai	51
Calcutta	25
Pune	23
Others	22

Source: NASSCOM (1998)

Table 7.7: Location of Indian software company headquarters

Although Mumbai has a greater number of software firms the exponential growth in Bangalore, especially involving major multinationals, has meant that today what happens in Bangalore dictates the trends in the rest of the industry in India. The city has two major technology parks - the Keonics Electronics city set up in the early '80s and the recent International Technology park, a joint venture between a consortium of Singapore based companies, the Tata Group, and the state government. These parks have their own infrastructure like power, water, telecom and satellite links. As the number of firms in Bangalore reached a critical mass, increasingly, employees have followed the path of those in the Silicon valley; they have left their previous employer and decided to set up their own firm. This along with the labour and infrastructural factors have been self-reinforcing and caused the clustering of software firms around Bangalore.

Strategic limitations to the growth of Bangalore:

In the recent past Bangalore has received an adverse amount of bad publicity. The loss of the prestigious Indian Institute of Information Technology, to be set up by the Andhra Pradesh state government with funding from most of the leading software multinationals like Microsoft, Oracle, IBM, etc., to the city of Hyderabad, along with the Microsoft software development centre has been embarrassing. As the loss of prestige started becoming obvious, increasingly, the total collapse of the infrastructure in and around Bangalore was cited as the main reason for investors seeking alternate locations (interviews).

Although since 1991 the number of vehicles on the roads of Bangalore has increased by about 33 per cent, there has been no increase in the number or size of roads in the city (Stremlau 1996). This has caused traffic jams, delays in reaching the office and drop in productivity amongst employees (interviews). The situation worsened to such an extent that the hundreds of executives from various software firms blocked the major roads leading the software parks in protest against the state government's inaction. The increasing traffic has also led to a dramatic increase in pollution levels undermining one of the main attraction of Bangalore - its' weather. In addition the city still does not have an airport to cater to international flights - even now Bombay and Madras have to be used for international connections. The proposed airport which was to be built by a private sector consortium has become a victim of the vicissitudes of the Indian political system. To compound the problems faced by the industry, there are severe electricity and water shortages in the city. The situation has progressively deteriorated, with virtually no increase in the supply of either water or electricity in a city which has seen exponential growth in population over the past

decade (interviews, Nicholson 1998). One of the leading software entrepreneurs in India was of the opinion that “Given the malaise in bureaucracy and the acute infrastructural problems, the city has about five years to turn the situation around, before the investors start abandoning Bangalore.” (interviews)

Thus the city has been plagued by the total lack of leadership at both the state and city level which has meant that there is very little vision or planning for its’ overall management. The problem is that not only is it competing with other cities like Hyderabad and Pune in India, but also cities in other countries that are in a position to offer more investment options and enhanced infrastructure to lure multinational corporations.

Conclusion:

The software industry is one of the few Indian industries that can compete successfully in a global market. The industry which has leveraged its competitive strengths - a skilled, English speaking labour force with low wage costs, ties to industry professionals of Indian origin in many countries, and minimal government intervention - to attract international attention. Some firms in the industry have positioned themselves to be true multinationals by setting up operations in several countries, presenting their accounts according to international standards, and preparing to list on the major exchanges in the US and Europe. The industry has been opportunistic in taking advantage of fortuitous market developments such as the Year 2000 problem and the introduction of the Euro.

Although the Indian software industry started out low on the totem pole in terms of technological sophistication, it is steadily moving up. Several firms have

received ISO 9000 certification and a handful have received the highest awards for technical excellence. A recent example is the Software Engineering Institute's 'level 4' certification that Infosys Technologies Ltd. received, placing it in the top two dozen firms worldwide.

The stock market is clearly factoring in a tremendous growth rate for the major software firms, with earning multiples reaching dizzying levels, even by Wall Street bull-market standards. This has resulted in at least a couple of companies with market capitalization approaching \$1 billion, placing them at the very top of the Indian stock market. It is interesting to see that the market capitalization of the top Indian companies are not far behind those of their counterparts in the United States that were founded by people of Indian origin. In January 1999, the top 10 IT stocks account for nearly eight percent of the total market capitalisation of the listed companies on the Bombay Stock Exchange. At the same time last year they accounted for just 1.7 percent of the market capitalisation (Economic Times, 1999). In sectoral terms, the software sector has catapulted itself into the top three industries in terms of market capitalisation behind the fast moving consumer goods and refinery sectors. In IT stocks like Wipro, Infosys, NIIT, Tata Elxsi are for the first time, displaying price earnings ratios (P/Es) on par with the global technology majors in the US. P/Es of these companies range between a mind boggling 83-123. Analysts justify the attraction of such high P/E multiples to their earnings potential in the years to come. The IT sector is envisaged to grow a robust 50 to 70 per cent for at least the next five years.

Although the performance of the Indian software industry in the past five years has been impressive, it is still modest by world standards. Currently India's share of

the global IT industry is less than 2 per cent. The total Indian software exports for 1997 were around \$1 billion, a tiny fraction of the world market. Everyone recognises that the growth potential is vast in this industry, even without taking into account related opportunities in communication and computer services. The software industry association NASSCOM says that Indian IT industry is expected to grow to \$85 billion from a mere 2.75 billion in 1998. Out of the projected figure, exports are expected to amount to \$50 billion. Even at this level, India's share of the global market is unlikely to cross five percent of the then global IT industry size.

Till very recently, the involvement of the Indian government in the software sector was restricted to occasionally provide incentives to promote exports. Although in the early eighties, the sector was identified as one of the strategic industries that should be promoted, given the overall autarchic nature of the political economy, nothing was done to actually promote transfer of technology or allow multinationals to invest in a big way. Thus the industry grew large on the back of private initiative. It is only in the last five years that the government has been making a conscious effort to try and meet the *actual* needs of industry, especially in terms of venture capital, infrastructure, tax concessions, etc. But given the overall nature of a underdeveloped federal political economy, government initiatives are constrained by lack of revenues, political compromises and lack of authority to actually see policy initiatives to fruition. This is especially true in the context of infrastructure development, which is proving to be a severe handicap for the Indian software industry vis-a-vis its competitors. The dramatic slowdown in the growth rate of the software industry in Bangalore is a clear reflection of this; ironically, this has led to a more balanced growth of the software industry in the country as a whole, with other cities like

Hyderabad, offering better facilities, emerging as the new poles of growth. Also, in equally ironic terms, the underdeveloped judicial system (which is prone to delays of about a decade in civil cases due to overburdening) has meant that employees in the software sector are extremely mobile and have no judicial constraints in changing jobs. This in turn has facilitated the exchange of tacit information and led to greater innovation in the sector.

SECTION III:
STAKEHOLDER SYSTEMS & KNOWLEDGE INDUSTRIES

Dynamic Identity: Stakeholders Systems & Knowledge Industries

Introduction:

In the previous chapters, we have developed two broad streams of research - first, on the nature of allocation of financial capital in different business systems (chapters 2, 3, 4), and second, on the problems associated with exchange in knowledge based industries (chapters 5, 6, 7). The issue that is common to both the streams of research revolves around problems associated with measuring performance in the stakeholder system of allocation of financial capital and in knowledge based industries (due to the intangible element in knowledge goods). This chapter attempts to develop a framework that will help us with performance measurement in both cases.

The field of business and society has become a crucial area of social science and management research (Ullman, 1985; Marcus, 1993; Arlow & Gannon, 1982). As analyzed by Jones (1995) three major strands have dominated research in this field: models of corporate social performance (Carroll, 1979; Wood, 1991a; 1991b) focusing on the internal aspects of the firm; models of social control of business (Jones, 1995) focusing on the external environment of the firm; and, stakeholder models (Freeman, 1984; Donaldson & Preston, 1995; Preston & Sapienza, 1990; Polonsky, 1995; Mitchell, Agle, & Wood, 1997; Rowley, 1997; Hill & Jones, 1992) focusing on the various actors that constrain and influence a firm's behaviour and performance. These models endeavor to address the ongoing academic debate between the neoclassical assertion that any attention to social performance "is a breach of [investors'] trust that inevitably reduces the welfare of shareholders" (Preston, 1994: 2),

and the more behavioral based view of firm performance founded on notions like cooperation and trust between business and society, namely that business legitimacy is derived from favorable social performance, and that social and financial performances tend to be positively correlated in the long-term (Freeman, 1984). In general, it is increasingly conceded that within management research there is growing appreciation for the role of stakeholder relations (Rowley, 1997; Jones, Hesterly, & Borgatti, 1997), but the diversity of stakeholder interests erects significant obstacles in terms of their capability to ascertain measurement and performance in the market place.

Donaldson and Preston (1995) have recently integrated the three major aspects of descriptive accuracy, instrumental power and normative validity of stakeholder theories. Their works and other earlier works such as Freeman (1984) have helped to raise fundamental issues which combine the purely economics and competition driven aspects of firms, along with the more social dimension of exchange based on cooperation. These works overlap with the research of Granovetter (1985), Coleman (1990), and Burt (1992) which demonstrated the importance of embeddedness in the social structure and the role of social capital. Both streams of research however assume that the value of the products and services provided by the firm in the market place is tangible and easily measurable. Thus, uncertainty for stakeholders has in past research to do more with agency and monitoring problems (Jensen & Meckling, 1976; Eisenhardt, 1989) than with the nature of intangibility of a firm's quality and its implications for competitive success.

In this chapter, we try and integrate the problem of measurement costs in research on stakeholder systems; it seeks to link the fundamental issue of measurement and performance assessment difficulties with the role of multiple groups of stakeholders in management theory. This link is structured around a dynamic notion of, "identity". Existing literature that

overlaps with this framework includes Dutton and Jackson (1987) and Haunschild (1994). Our standpoint differs from these earlier works in the following two ways: first, we raise the issue of quality intangibility - an especially important issue in today's globalized, uncertain and knowledge driven business environment. In such environments, "association" with certain external organizations or players help to increase credibility and legitimacy in the business environment. Second, we operationalize the idea of dynamic identity using indirect measurement indicators - institutional indicators the market may be using to reduce such measurement problems, which help to legitimize organizations.

Defining the business environment - stakeholder diversity:

According to Preston & Post (1975), there is a primary area of organizational involvement with society - transactional behavior which "arises directly from (the firm's) specialized functional role", and a secondary area of organizational involvement with society which includes "impacts and effects not intrinsic to the character of the organization but generated by its primary involvement activities" (1975: 10-11). Moreover firms are responsible for outcomes arising from both the primary and secondary category of involvement with society - the notion of public responsibility.

Although firms are responsible for the effects or outcomes of their actions, the former are not necessarily under their direct control. A distinction must be made between outcomes of primary and secondary action in terms of them being under the control of the firm or not. A major consequence of this distinction is that controllable outcomes allow for corrective action if required, whereas less controllable outcomes have a quality of mystique and hopelessness in terms of corrective action. Thus, we can say that effects or outcomes of activities in the primary field are usually directly correlated to action in the field. For

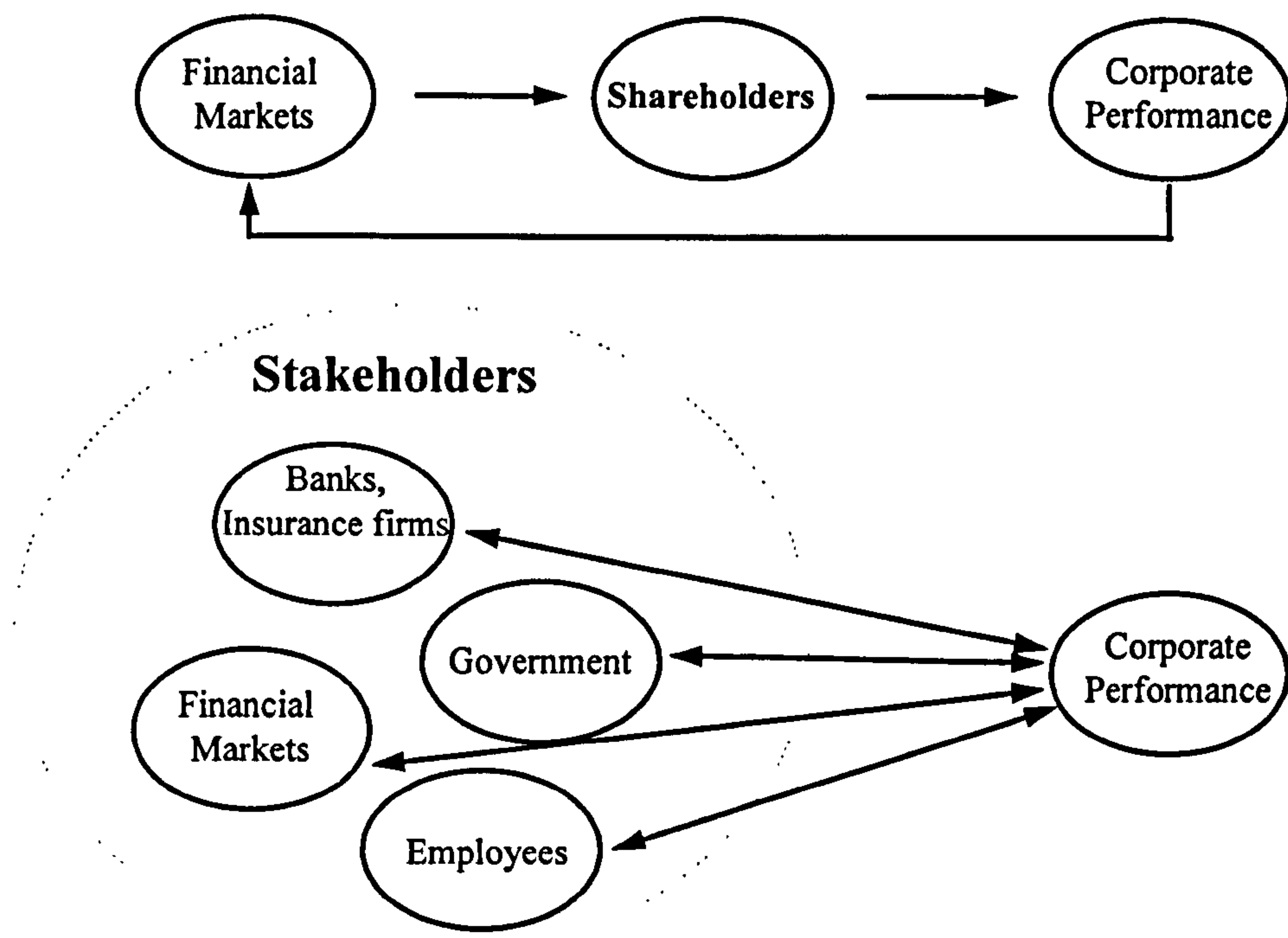
example, one would expect an aircraft company, whose planes are revealed to have serious defects that render them highly prone to accident, to lose its customer base and go out of business if no corrective measures were taken. In this case, outsiders such as airline companies and ultimately passengers are directly affected by the firm's action, therefore identifying the stakeholders involved is relatively straightforward.

Complications arise when, as suggested by Wood we consider the field of involvement expanded further into society, where "the reciprocal influences of business and society are so wide-ranging that companies may indeed be able to justify social involvements that seem far afield from their primary and secondary involvements" (1991b: 698). In this case it is evident that action in the primary and secondary fields of involvement with society can have ripple effects on multiple fields of involvement. But whereas in the primary field of involvement there is a direct connection between cause and effect, in the area of secondary involvement cause and effect relationships are less salient and much more difficult to discern. Similarly, as we move further into multiple, ripple-effect fields of a firm's involvement with society, causality links between action and consequences become increasingly blurred, complex, entangled with a variety of social factors and consequently resistant to analysis. Secondary and multiple effects are not under the control of the firm because the processes of their occurrence involve streams of disparate outsiders, not necessarily directly related to the firm's primary activities, with a variety of interests that can be affected by indirect, complex and frequently unexpected consequences of a firm's action. Thus:

Proposition 8.1: Actions in the primary but predominantly the secondary and multiple fields of a firm's involvement with society inadvertently invite a broad and relatively disparate group of stakeholders due to indirect and complex interactions.

This broad area of a firm's involvement with society and the multiplicity of stakeholders is depicted in gray in Figure 8.1. Proposition 1 ties in with the notion of corporate social

responsibility (Davis, 1973; Carroll, 1979; Frederick, 1986) - that society expects and rewards proper business behavior, as well as functional theory and the principle of legitimacy (Preston & Post, 1975) - that firms play an institutional role in society and they are rewarded with legitimacy when their conduct is in harmony with the rest of society's institutions. Furthermore, it exposes the enormity and complexity of the phenomenon of stakeholder/firm interaction and its effect on business viability. The double-headed arrows in Figure 1 depict the complex social ties and interactions which bind firms with corporate social responsibility, but at the same time award legitimacy and can positively affect corporate performance.



Source: Adapted from Choi, Lee & Kim, JIBS forthcoming

Figure 8.1 :Shareholder versus stakeholder business systems

Stakeholder governance and measurement costs:

There has been significant interest in the notion of stakeholders, primarily since Freeman's (1984) seminal book, "Strategic management: A stakeholder approach", including

publications by Clarkson, 1991; Jones, 1995; Brenner & Cochran, 1991; Alkhafaji, 1989; Hill & Jones, 1992; Carroll, 1989; Goodpaster, 1991; Evan & Freeman, 1988, which either elaborate different aspects of stakeholder theory or combine it with corporate governance, ethics or agency theory. Because of the diversity of stakeholder/firm interests and interactions, there has also been an enormous amount of literature elaborating on more pragmatic definitions of a stakeholder and the development of tools for managing stakeholder relationships for the benefit of firm performance (Mallott, 1990; Preston & Sapienza, 1990; Polonsky, 1995; Gray, 1989; Post, Murray, Jr., Dickie, & Mahon, 1983), as well as on exploring the nature of the relationship between social and corporate performance (Cochran & Wood, 1984; Spencer & Taylor, 1987; Aupperle, Carroll, & Hatfield, 1985; McGuire, Sundgren, & Schneeweis, 1988).

Although in the literature it is generally taken for granted that stakeholders are capable of measuring a firm's performance and accordingly adjust their attitudes, in reality it is not at all clear how stakeholders discern and value tangible, but more importantly, intangible and invisible assets. In other words, much of the existing research has eschewed from analyzing the issue of performance measurement, confident that this is transparent to stakeholders. Thus, what is fundamental to our analysis is the role of measurement costs (North, 1990) inadvertently arising from measurement problems which stem from the diversity of stakeholder interests.

Apart from stakeholder systems, similar measurement difficulties arise in knowledge-based industries due to the inherent intangibility of product and service quality in these industries (Spender, 1997; Hosmer, 1995), although the major focus in this chapter is on such issues in stakeholder systems. Grant & Spender (1997) provide a comprehensive review of recent developments in knowledge based industries. Knowledge-based industries seem to be

increasingly entangled as firms continuously forge links with actors from a range of diverse industries. This leads to dilution of traditional industry boundaries and acceleration of the rate of change and innovation, resulting in an absolutely volatile and complex environment. Thus:

Proposition 8.2: In stakeholder business systems as well as in knowledge-based industries, there are acute performance measurement problems which call for a dynamic regime for systematic identification and legitimization.

The duality of the circumstances under which measurement difficulties arise and the need for identification which becomes acute is shown in Figure 8.2.

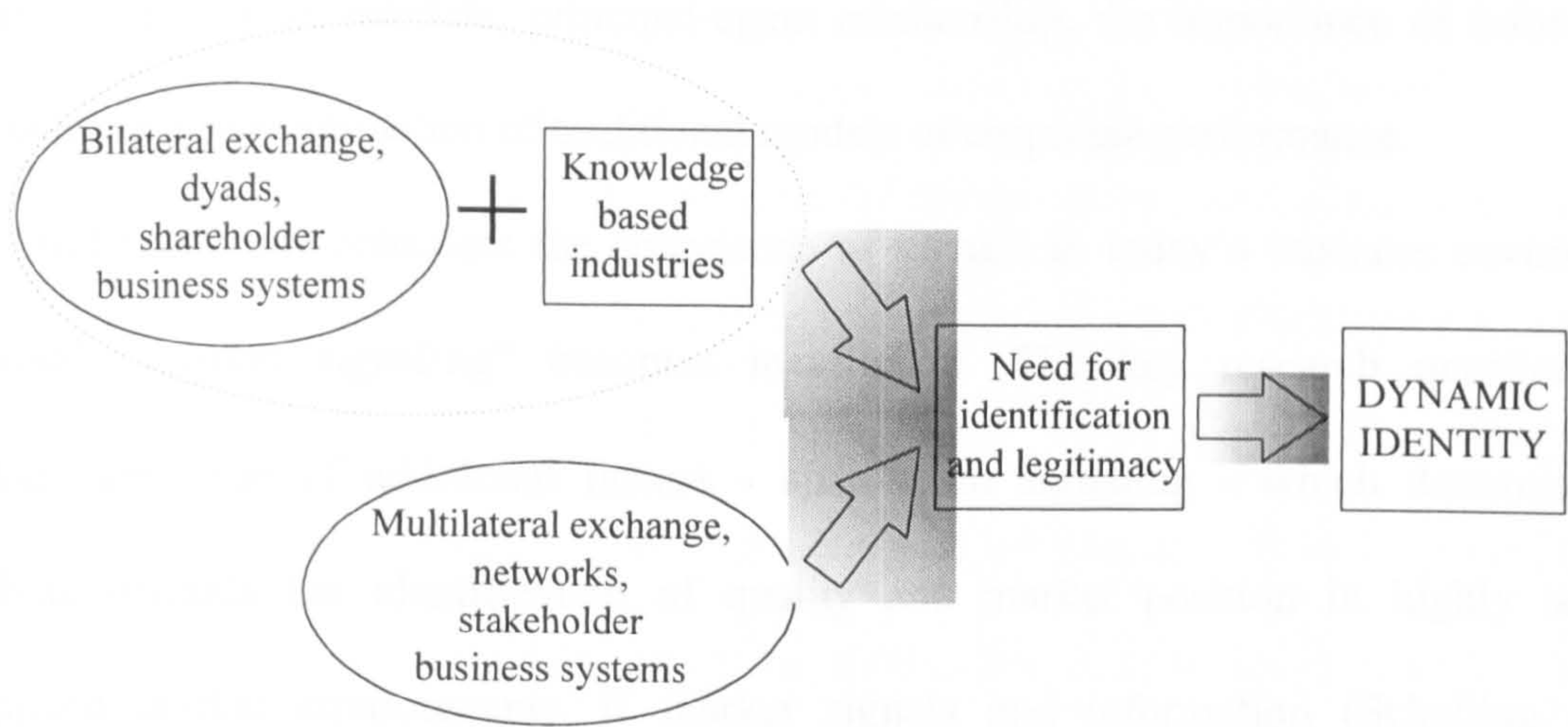


Figure 8.2:

The need for dynamic identity arises in stakeholder systems and knowledge-based industries

Towards a dynamic identity system:

In this chapter we seek to identify a dynamic regime to tackle the problem of performance measurement in complex socio-economic environments. Previous research on

organization reputation may be indicative of our approach; there have been suggestions that poor social performance can generate market fears and erode reputation, resulting in increased risk premiums and ultimately unfavorable financial performance (Cornell & Shapiro, 1987). Organizations need to “influence perceptions of who [they] ... are and what [they] ... are likely to do” (Nalebuff & Brandenburger, 1996: 201). The effects of signals and information on corporate governance and accountability differ between the shareholder and stakeholder business systems (Donaldson and Preston, 1995; Jones, 1995; Hill and Jones, 1992; Freeman, 1984). The realities of today’s complex business environment including the pressures from capital markets, principal-agent relationship, the importance of information flows warrant a re-examination of traditional models of corporate performance.

But when one considers the abundance of signals in today’s business environment traditional, “market signaling” becomes insufficient. The key research question then addresses the issue of additional factors - apart from signaling - which determine and contribute towards the identification of quality and market position in highly socially constructed market environments. If market signals and information (Schelling, 1960; Spence, 1973; Heil & Robertson, 1991) help to overcome uncertainty in general, an important issue is what type of market information influences stakeholder attitudes. Thus, stakeholder theory research needs to incorporate the difficulties that firms may face in defining social measures for performance (Swanson, 1995; Jones, 1995).

Our aim is to develop a dynamic identity concept which, without being based on market signaling, takes into account the social and institutional indicators of performance (Granovetter, 1985; Burt, 1992). Our main thesis is that in knowledge based industries and in stakeholder business systems, the issue of “identity” emerges as a means of navigating through the uncharted waters of performance measurement. One can then summarize the

situation by tabulating the acuteness of the performance measurement problem and the consequent degree of the need for the concept of dynamic identity to be introduced in both the stakeholder and shareholder business systems and different industry types, as shown in Table 8.1.

	<i>Knowledge-based industries)</i>	<i>Manufacturing industries</i>
<i>Stakeholder business system</i>	4	3
<i>Shareholder business system</i>	2	1

Table 8.1: The need for dynamic identity

From Table 8.1, one can see that measuring performance in manufacturing industries in shareholder business systems presents no particular problem since product quality and value are available, transparent and undisputed. Moving away from manufacturing industries in shareholder business systems and into stakeholder business systems, measurement difficulty progressively increases as the transparency of product quality and exchange value fades away and the respective complexity of stakeholder interaction increases. Then the necessity to introduce, operationalize and use a dynamic notion of dynamic identity becomes unavoidable. From the table, we can see that such issues are most important for stakeholder systems in knowledge based industries.

The non-complex, mechanistic view of social phenomena treats issues of identification and legitimacy in a textbook fashion, for example, organizations have to monitor their environment, pick up signals from it and respond to them according to some formula which links action to desired effects. Accordingly, a variety of frameworks have been developed which seek to identify environmental contingency and suggest appropriate strategic action (Ackerman, 1975; Wilson, 1977; Fleming, 1981; Strand, 1983; Fahey & Narayanan, 1986). But the unsophistication of linear thinking is evident in the presumption

that better social monitoring is directly correlated with improved financial and social performance (Newgren, Rasher, LaRoe, & Szabo, 1985). There is a fundamental flaw in this approach, namely that it is assumed that firms have, in advance, relatively complete information about the outcome of their competitive environment, for example that the future is dominated by closed or contained change (Stacey, 1996). Naturally, this assumption runs contrary to Schumpeter's main thesis that firms are ineffective in anticipating future contingencies because the future is principally open-ended.

Dynamic identity and institutional certification:

In complex environments the co-evolving emergent behavior is characterized by multiplicity of causes, where direct causal links between intentions, decisions, and outcomes disappear, and long-term predictions become impossible (Stacey, 1996; Johnson & Burton, 1994; Mintzberg & Waters, 1990). Due to the inherent uncertainty of complex environments, learning or complex adaptive models are needed based on iteration as the link to future outcomes (Gell-Mann, 1994; Kaufman, 1993; Macy, 1993). These models consist of processes and rules, "set[s] of heuristics, or rules of thumb, that perhaps can be explained (and perhaps justified) insofar as they economize on cognitive effort" (Orbell & Dawes, 1991: 517), not choices or content. In fact, there is extensive evidence that economic outcomes are not driven by choices - such as utility maximization - but by rules and processes which can not be simply reduced to a simple utility maximization function (Hayek, 1967; Winter, 1998; Simon, 1992; Vanberg, 1994). These rules we will seek to uncover. In effect these rules limit the unpredictability of complex social behavior by limiting their range of variation, resulting in 'quasi-stable' patterns of behavior - strange attractors- emerging inside the torrent of random behavior (Gell-Mann, 1994; Sanchez, 1997). We agree with Macy

(1997) that with the help of dynamic models, identity-based and interest-based theories of group behavior and solidarity can be integrated.

When dealing with social effects on the economic environment we cannot avoid taking on board and expanding on Turner's argument that "identity is the cognitive mechanism which makes group behavior possible" (1982: 21). We adhere to Macy's reasoning that theories based on shared identity (Dutton & Jackson, 1987; Collins, 1992; Oberschall & Kim, 1996) - the cohesive effects of similarity - are not adequate in enhancing "the capacity of interactants to act collectively in pursuit of common interests" (1997: 429). Actors polarize and group together via an emotion of shared identity emanating from salient attributes and characteristics. In this case any sense of self-interest - attainment of an objective - is lost and substituted by a motivation of pure public spirit, any attribution of purpose is lost (Macy, 1997). On the other hand, there is the self-interest paradigm which views group behavior - cooperation and exchange - emanating from a sense of public-spirit, interdependence and complementarity, an overlapping of self-interests (Kelley & Thibaut, 1978). Identification is thus defined as a process in which "one actor has adopted, or taken up, the other's interest" (Coleman, 1990: 158), by making a rational choice (Oberschall & Kim, 1996) based on expected outcomes or utilities.

In the business environment, tension between self-interest and collective interests is a fundamental problem for both these theories (Macy, 1993) because a group's collective behavior cannot be reasonably seen as stemming solely from one or the other. Unlike groups identified by explicit characteristics like gender or race, identification with social groups in the business world is much more complex (Grafstein, 1995) because there exist groups which do not have a single, externally recognized feature. Moreover, in evolutionary environments group identification is not automatic because new identities are constantly formed to serve

new purposes (Horowitz, 1985). Therefore, there exist indiscernible evolving socio-economic groups (Gartner & Segura, 1997) and we believe that, in business, social effects are expressed through and materialize via such groups. Our aim is to provide a framework which seeks to uncover this mantle of invisibility for the benefit of outsiders. Outsiders, being unidentified by the socio-economic environment, struggle against competitors who receive benefits through social interaction, so in a sense, social interaction works to the detriment of unidentified groups, for example, they cannot enter the virtuous circle that social effects can offer.

As defined by Coleman (1990) and Granovetter (1985), actors in the market and within social structures are a synthesis of a network of constraint generating relationships and a network of real and imagined embedding relationships. We believe that this dual nature which helps determine an actor's identity is also linked to the idea of market signals (Schelling, 1969; Spence, 1973), which "... demonstrate to others the actor's intentions or abilities or some other characteristic about which the actor has private, unverifiable information." (Milgrom & Roberts, 1992: 212). Thus, outsiders faced with this situation struggle for self-identification, but more importantly for institutional certification, social legitimization and reliable identification (Granovetter, 1985; Coleman, 1990). Uncovering the fundamental mechanisms of institutional certification, social legitimization and reliable identification can be to the benefit of newcomers, whose tacit qualities and characteristics have to be identified by the socio-economic environment in order to be selected from the unidentified population they come from (Smith, 1996; Gartner & Siverson, 1996) to enter the regime of favorable social effects.

Dynamic identity - Strategy by Association:

Due to the diversity of stakeholder interests and the existence of measurement costs, “association” with external players can serve as cues to certifying and measuring the value and content of a firm’s products or services. This idea overlaps with recent works such as Podolny (1993), Cadmic (1992), Haunschild (1994), Carter & Manaster (1990) which have recently developed further the earlier works of Simmel (1950), White (1970), Sorensen (1983), Bonacich (1987), Dutton & Jackson (1987), Jackson & Dutton (1988) to show that a firm’s position in the social structure can in turn affect not only rewards, but can reduce the firm’s ability to interact with firms with different social status. We believe that this basic idea of interdependence can be taken further.

As we look at institutions and social indicators of performance and measurement, we need to appreciate the importance of association with players in the market and the social structure. Various works such as Haunschild (1994), Granovetter (1985), Podolny (1993), Burt (1992) have analyzed the importance of the role of social structure in market competition. Our article attempts to operationalize the nature of association and the communication of such associations or linkages. We try to operationalize the effects of associations and phenomena such as external commentary - favorable reviews in business publications - which create awareness used by companies in their overall strategy, or the role of invisible assets such as accumulated consumer information, brand name reputation (Itami & Roehl, 1987). But the existence or possession of such invisible assets is not always easily transformed into market information, and thus, external cues and intermediaries can play an important role in creating a value for such assets in the market place. Institutional factors complement existing information in the market, such as signaling, to illuminate the complexities of measurement. Although today’s increasingly turbulent and uncertain

competitive environment has increased the importance of such external factors, the existing literature has not conceptually framed how such institutional factors can be analyzed.

These institutional factors or external cues are synonymous to the concept of “indices”. As defined by Jervis indices are “ ... statements or actions that carry some inherent evidence that the image projected is correct because they are believed to be inextricably linked to the actor’s capabilities or intentions.” (1985: 26). Based on the notion of indices, we can then construct the definition of dynamic identity as a compilation of certain such indices which help to identify a firm’s invisible assets and performance. Our definition of dynamic identity is based on the following four indices or drivers of identity: Firstly, an organization’s client base is a driver of quality; the position or status (Podolny, 1993; Frank & Cook, 1995) of the particular clients can in turn promote its ranking within the market place. Secondly, the ability and reputation for being innovative - developing new products, a dynamic corporate culture - is another type of index in the market place (Haunschild, 1994). Thirdly, an organization’s networks, whether they be collaborators or competitors, provide some additional institutional certification in the market place. An example of this would be top ranked business schools being competitors but holding executive programmes or other conferences together in a network (D'Aveni, 1996). Fourthly, outside external sources of information, such as Standard and Poor indices in financial markets, consumer reports written by private organizations, business magazines and commentaries, all serve the function of institutional certification. Thus, we define dynamic identity as the following:

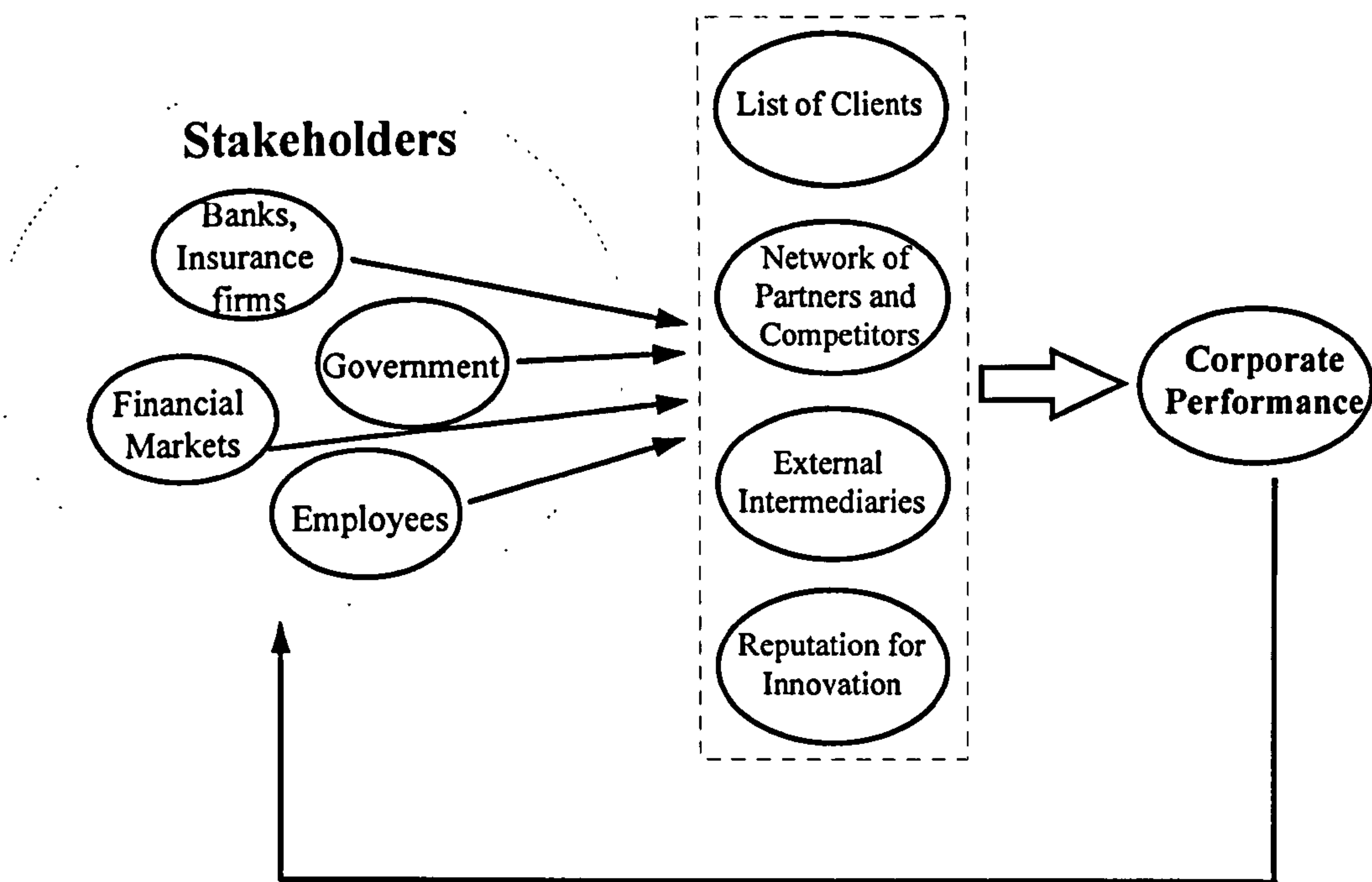
Dynamic identity is a compilation of the following four types of indices: list of clients; reputation for successful innovation; network of partners or competitors; evaluation by external intermediaries.

The four institutional drivers or indices define a firm’s dynamic identity and certify its quality and status, providing an institutional measurement of performance.

An explanation for a firm's overall and continued market success or dominance in its industry needs to take into account these external factors. Moreover, stakeholder theories - which measure the performance of firms and their responsiveness to external constituencies such as customers, government, society (Jones, 1995) - also need to incorporate the role played by external drivers of institutional certification. Our framework also contributes towards further illustrating the behavioral research of Burt (1992), Feld (1981) and Granovetter (1985) on the importance of relationships within the social structure and how this influences competition. Stakeholders need to evaluate not only the competitiveness of the organization in the market, but also its position in the social structure and its relations with institutional certification. Therefore, the abstract economics based model of anonymous exchange and competition is only a beginning. Research in stakeholder theories succeeds in bringing together anonymous exchange and behavioral research - two major frameworks in management research - to complement each other's frameworks

Dynamic Identity in Stakeholder systems & Knowledge Industries :

Devlin & Rosenberg (1991) noted that understanding a phenomenon adds up to constructing a suitable metaphor or schema, and based on the schema generating a detailed but sufficiently abstract description of the phenomenon to override the limitations posed by the schema. In the same vein, we have constructed a schema which is capable of generating descriptions and meanings in the complex environments of stakeholders and knowledge based industries. Figure 8.3 illustrates our schema for stakeholder identification based on the notion of dynamic identity.



Source: Adapted from Choi, Lee & Kim, JIBS forthcoming

Figure 8.3: Stakeholders and indices: Indirect measurement

It is a schema for generation and accrual of social capital (Granovetter, 1985; Coleman, 1990; Bourdieu & Wacquant, 1992). The schema utilizes a tagging mechanism to break down the apparent asymmetry and complexity of intangible knowledge, facilitate partner selection and the formation of aggregates (Holland, 1995). Stakeholders lacking these tagging characteristics will be harder to evaluate, minimizing the possibility of potential exchange. Borrowing Lane & Maxfield's terminology, one could say that our proposed model is an attempt to "generate insight into the agent-artifact space that the agent inhabits and into the way in which control is distributed through that space" (1996: 226). Therefore, actors who can identify themselves and others in terms of the four indices, possess the advantage of having a clear picture of their world and their position in it, and they also understand that they have to concentrate effort and resources in entering or moving within these indices. Also, Lane and Maxfield (1996) suggested that generative relationships which are an essential

strategic competence in complex environments can alter an actor's positional information and schemata. Rankings in terms of the four indices promotes generative relationships because it introduces a measure of heterogeneity between actors by separating them along the indices.

A firm's dynamic identity is a metaphor for its quality and exchange potential and it is mediated as a meme (Dawkins, 1976), a cultural transmission. Given the environmental uncertainty proceeding with an exchange seems more like following a religious creed than an objective choice, and it depends on the frame of reference of the environment, background beliefs (Coveney & Highfield, 1995). Stakeholders need a yardstick to judge organizations, to transform their own and others' memes into scientific memes like mathematical models, which proliferate when their predictive or descriptive capacity is being continuously verified by scientific data. Identity, in the broad definition of the term, is a meme, a cultural transmission, because it relates directly to the socio-economic environment within which it evolves. "Dynamic identity", on the other hand, is a scientific meme because it offers the option of comparison with identity memes with other agents.

The rules of dynamic identity are based on already existing outcomes - products of past stakeholder cognitive processes - and future outcomes "attract action via [iterative] gradient search, without the need for a map of the evolutionary landscape" (Macy, 1997: 435). This is shown in Figure 3 with the introduction of single-headed arrows facing towards "corporate performance" instead of the double-headed once picturing complex and indiscernible interaction. The schema is completed with the introduction of a feedback loop which performs gradient search. Each time the process goes round one loop, the schema - as a sensemaking mechanism - creates cognitive structures in the stakeholders and determines their attitudes and actions, which in turn establish the emergent landscape for that loop. The iteration of the schema - the patterns, principles and rules that govern individual action and

interaction - generates an immense richness of outcomes (Drazin & Sandelands, 1992). As unexpected outcomes emerge, lessons of the past are learned allowing for future avoidance and alternative courses of action to be iteratively explored. Therefore, the quantitative measure of dynamic identity of a firm changes iteratively with consequent effects for performance evaluation. Firms achieving high measures in terms of the four drivers of dynamic identity will be selected and promoted by the stakeholders, and vice versa.

Conclusions:

The purpose of this chapter was twofold. Firstly, to focus on the importance of measurement costs and the problem of communicating identity, in stakeholder systems and knowledge based industries. Secondly, to provide a framework for overcoming the inherent ambiguity and increased measurement costs associated with stakeholder systems, founded on indirect measurement indicators, or “indices” which define dynamic identity.

The role of institutional certification, external measurement of quality and assessment of value beyond general market information was treated as fundamental in stakeholder systems and knowledge-based industries, where there is high intangibility of value and content (Spender, 1997; Spender & Grant, 1997). Institutional certification, in terms of “dynamic identity”, is defined by external indices: list of clients; reputation for successful innovation; networks of partners or competitors; evaluation by external intermediaries. Firms compete in the market against other firms; however, they also maintain long-term relations with these institutional certification mechanisms, which provide a system of indirect measurement of performance. We provide a framework for integrating these external measurement factors into stakeholder theory and identity theory (Dutton and Jackson, 1987; Donaldson and Preston, 1995; Freeman, 1984; Mitchell, et al. 1997; Rowley, 1997; Jones,

1995; Wood, 1991a, 1991b). Moreover our framework is a dynamic one that seeks to uncover the rules, processes or principles for strategic organizing on which quasi-stability of future outcomes may be attributed, and thus contribute towards the survivability of firms in complex competitive environments such as stakeholder business systems and knowledge-based industries (Sanchez, 1997).

CONCLUSION

Over the past two decades there has been a fundamental transformation in the competitive space of international business. The competitive deregulation between countries, less protectionism, formation of regional trade blocs, structural changes in industries because of technological changes, excess capacity and customer expectations, environmental concerns, and inter-organizational collaborative arrangements, have either cumulatively or in subsets, had an impact on almost all the industries. Of all these changes, it is the concept of globalisation, which is primarily driven by the necessities and circumstances created by the reorganisation of the human condition through scientific technology, that is having impact world-wide. While the economic manifestations of globalisation include spatial reorganisation of production, the inter-penetration of industries across borders, the spread of financial markets, and the diffusion of consumer goods to distant countries, the rubric of globalisation includes political, cultural and ideological levels of analysis. The fallout has been that some of the collective wisdom of the past decades have been challenged and failed to withstand the onslaught of innovative developments in international business, leading to a major shift in the basis of competition.

The distinctive feature of the trends in the recent past has been the dramatic rise of the “emerging markets” as attractive locations for the investments of the multinationals. But the investment pattern clearly indicates that the investments are skewed in favour of some “big” emerging markets and that the other countries with perceived potential have lagged behind. The investments in these developing countries falls into two main categories. First, in countries like China and India, most

of the investments flowing in are primarily meant to exploit the huge domestic market. On the other hand, places like Singapore, which despite its size attracts large investments, are looked upon as being a base for the catering to the demands of the international market.

Given the dramatic rise in the number of developing countries that are trying to attract investments by following broadly similar economic policies, it is obvious that the factors that influence the investment decision of multinationals will not be restricted to the traditional elements of national attractiveness. Amongst the factors that are deemed as being critical by the multinationals is “industrial clustering”, i.e. the geographical clustering of industries, especially in the high-technology sector, centred around a part of a country’s science base, which leads to company growth and innovative success. For example the phenomenal growth of the software industry around Bangalore in India is attributed to the presence of research institutes and universities in the area. The momentum towards the globalisation of industries is emphasizing the growing significance of such locational differences in terms of particular abilities.

The clustering of industries is one of the key factors that has led to the emergence of “poles of growth”. These growth areas provide a locus of pooled talent and a environment that encourages the growth of industries that are critical to economic success in the coming millennium. The state has to play a critical role in adopting a holistic policy, encouraging universities, research centres and local authorities to co-ordinate their efforts with the firms so to create an environment that will attract investment and self-sustaining clusters of economic growth.

In light of these radical changes in the world economy, this thesis is an attempt to re-examine the concept of development and international business. We have argued that the existing frameworks, dominated by the neo-classical approach focusing primarily on the developed countries, are inadequate to help us understand both the growth and recent collapse of some of the emerging markets. This trend to re-examine existing frameworks is visible in development economics, where after a period when the debate was effectively polarised along ideological lines, the last decade has seen a renewed enthusiasm amongst social scientists to revisit the concept in light of some dramatic changes in the international political economy. Amongst these are the collapse of the most extreme forms of socialist states, a flourishing of some form of democracy, astonishing economic growth in South East Asia based on a non-liberal economic model and most importantly, the phenomenal impact of the rapid advances in information technology. In this context, the most significant issues in the debate about development are the emergence of some developing countries as significant players in the global economy, the belated acceptance of the role of the state in development (World Bank 1993, 1997) and the role of knowledge in fostering and enhancing development (World Bank 1998).

The thesis examines two aspects of development and international business - the role of financial capital allocation within the emerging market business system (Choi, et al. 1996) and the role of knowledge in the context of its distinctive features, i.e., intangible and inalienable, which influences the nature of exchange of goods in knowledge industries and thereby leads to clustering. The thesis is mainly *conceptual* in nature and given the very nature of the issues raised, *exploratory and multi-*

disciplinary. Amongst the reasons that India was chosen to illustrate the various issues were the fact that:

- India is one of the biggest emerging markets and critical to any debate in development economics and international business
- India managed to be relatively unaffected during the recent crisis, begging the question as to whether its' institutions and organisations, and business system (especially of financial capital allocation) are different compared to those in other emerging markets
- although India stands at the lower end of the human development index, it has emerged as one of the major players in the world software industry, with Bangalore emerging as one of the few cyber-cities in a developing country

CONTRIBUTION OF THE THESIS:

As suggested in the chapter 1, the main purpose of this thesis is to problematize the enduring value of existing views on development and international business, and to further explore an alternative perspective on development and international business systems. In doing so, we do not claim to have covered the vast array of diverse literature on the nature and impact of development, nor to have captured the infinitely complex details of economic and management issues. The very complexity of the issues raised and the fact that there is very little research, in comparative terms, on issues like finance and knowledge in emerging markets made the entire research effort difficult, but in our opinion rewarding. The problems associated with getting data from and on a country like India are well known and does not merit detailed comment. What we have done is to build on and refine existing

frameworks in the business systems approach to international competition (chapters 2,3,4), analysed the peculiarities of the nature of exchange in knowledge industries which lead to clustering (chapters 5,6,7), and tried to bridge the two streams of research (especially relating to measurement costs in stakeholder systems and knowledge industries) by developing the concept of “dynamic” identity (chapter 8).

More specifically we have:

- built on the framework developed by Choi (1996) of the “new” triad of business systems by using it to examine the different systems of financial capital allocation. This was then used to analyse both the success and recent failure of the Asian economies.
- analysed the nature of exchange of knowledge goods, in the context of the intangible and inalienable qualities and provided alternative frameworks based on reciprocity and redistribution
- attempted to integrate the expanding literature in economic geography and suggested that it needs to take into account issues of “labour mobility” to fully comprehend the relevance to international business research
- developed the concept of “dynamic identity” which will help overcome the significant measurement problems to ascertain performance in stakeholder systems and knowledge industries using indirect measurement indicators or “indices”, thus being useful in both the streams of research for this thesis.
- refined and developed various frameworks which can serve as building blocks for a grounded theory on issues related to finance allocation and knowledge in development and international business

In the sections that follow, we will list out the contributions of each chapter in greater detail especially in the context of the lacunae in the extant research in international business and development economics.

Chapter 2: Global Triad: National Business Systems Approach to Emerging Markets

The purpose of this chapter was to analyze the role of political embeddedness in comparative business systems research and its potential implications for the governance systems of emerging economies. As analysed by North (1990, 1994), the relationship between institutions and organisations need to be analysed as a whole in order to fully appreciate the complexities of successful economic performance. Traditional research has tended to generalise the success of mature economies in Western Europe and North America and what hints they can provide to new emerging and still developing economies. Chapter 2 developed the general frameworks of North (1990, 1994) further, to show the difference between the Anglo-Saxon (individualist) and Communitarian (collectivist) business systems, within the successful mature economies of Western Europe and North America. We also took into account in our analysis, the role of “political embeddedness” or the interaction between economic and non-economic or non-market actors (Zubkin and DiMaggio 1990; Boddewyn and Brewer 1994; Choi 1994; Olson 1991, 1992), in determining the success of national business systems. The Anglo-Saxon and Communitarian business systems have a different emphasis on the relationship between organisations, the relative importance of formal versus informal institutions, and the overall interconnections between organisations and institutions within a national business

system. In this sense, this has provided an even more complex national objective for emerging business systems such as in Asia, that have tried to combine elements of both business systems.

We believe our preliminary research and framework takes into account the reality of the local, non-economic (Whitley 1990; Olson 1991, 1992; Choi 1994; Boddewyn 1988; Toyne 1988; Zubkin and DiMaggio 1990) forces that influence firm capabilities and behaviors. It is beyond the scope of this chapter to conclude whether the Anglo-Saxon individualist system is always superior or inferior to the Communitarian collectivist system. Our purpose was to analyze their relative strengths and weaknesses, especially the relationship between institutions and organizations so that they can serve as potential guidelines for emerging economies that are in the process of establishing a governance system; emerging economies have a choice either between the two systems, or a combination of both systems. But such analysis also shows the crucial importance of analysis that goes beyond, pure market and economic factors, that takes into account the non-market actors and factors that influence the success of national business systems. Emerging market business systems add an additional generic complexity due to rapid growth, lack of various institutions, and the general level of uncertainty in their business environment.

Chapter 3: Financial Capital Allocation and Development

In chapter 3, we analyzed the Asian economic crisis through the role played by two major factors: “financial capital” allocation & “knowledge”, using the framework of political embeddedness of institutions and organisations, explained in chapter 2. We believe that an interdisciplinary framework incorporating international

business, international economics and economic development can help to provide a more systematic understanding of not only past Asian economic success, but the present Asian economic crisis. The fundamental issue is that the national business systems (North 1990; Olson 1992) in Asia were phenomenally successful for decades and then dramatically problematic in 1997. There is a need to understand the factors for past success, and which of these factors, if any were responsible for the crisis which began in 1997. We developed a “double triad” framework, including international markets and domestic institutions to better incorporate Asia’s emerging economies into the global competition frameworks.

Firstly, we analysed the two systems of capital allocation and ownership that have been proven widely successful in the mature economies of the world. These two major business systems can also be fundamentally divided into shareholder and stakeholder systems of capital allocation and ownership structures (Roe 1994; Hirschman 1994; Freeman 1984; Albert 1991). The Asian economic crisis was greatly due to the fact that in many of the more emerging countries of Asia including Thailand, Malaysia, Indonesia, neither systems of external nor internal financial capital allocation had been fully developed. Thus, the “level” of financial institutions in the national business system (Levine 1997; Demirguc-Kunt & Maksimovic 1996; Boyd & Smith 1996) is crucial to understanding the Asian crisis.

Secondly, we focused on the importance of taking into account the nature of “knowledge” acquisition, diffusion and delivery in emerging economies. Despite the past economic success of emerging economies in Asia, Eastern Europe and Latin America, international business research has not sufficiently analysed how such emergence environments differ from the maturity business environment of North

America and European Union; exceptions include Beamish (1988); Choi (1994); Inkpen & Beamish (1997); Landa (1994); Olson (1992). The balance among the three major parts of knowledge, acquisition, diffusion and delivery have changed. The strength of the collective, relationship and trust based national business systems in Asia were based on the “diffusion” and dissemination of externally created knowledge, usually from foreign countries such in North America and Western Europe. However, as the global business environment becomes increasingly dependent on creativity, R & D, technology, the so called, high-tech industrial milieu (Castells and Hall 1994), global competitiveness in knowledge resources has become more dependent on acquisition and delivery, rather than diffusion. In this sense, the knowledge allocation mechanism in Asia, based primarily on past diffusion has become no longer appropriate in today’s global business environment.

Although the Asian economic crisis has been widely debated and researched, the analysis has tended to be dominated by purely neoclassical economics thought (Krugman 1998). The approach in this chapter was to follow a broader, interdisciplinary approach including economic as well as international business and management frameworks. The “level” of emergence, of the financial institutions in Asia, and the ability to allocate or misallocate capital was a crucial factor in the crisis. Along with a greater global dependence on knowledge creation and knowledge based industries further added to the lack of maturity in Asian institutions.

The purpose of section II in this chapter was to analyse fundamental issues that influence pre-negotiation beliefs, values, assumptions held by international business negotiators in Asian context from two broader analytical frameworks: institutional (North 1990, 1991) and organizational (Schelling 1960, 1966). We feel

that these two interconnected levels of analyses help to overcome the psychic distance (O'Grady & Lane 1996; Sohn 1994; Johanson & Vahlne 1977) towards Asia in setting the foundations of successful international negotiations.

We analysed the question of whether the transactional aspects of negotiations could be the same in mature versus emerging market environments. In emerging business environments, the realities of uncertainty and high measurement and enforcement costs may require a mutual commitment (Schelling 1960, 1966) type approach to international negotiations. This fundamentally differentiates the Asian environment from more mature business environments, where there are much lower uncertainty, measurement and enforcement costs (North 1990, 1991).

Chapter 4: Indian Political Economy and Financial Capital Allocation

In chapter 4, we focused on the Indian political economy and the system of allocating financial capital in it, to try and explore as to how the domestic constraints of the institutions and organisations (North, 1990) shape the business system in any country, as explained in chapters 2 and 3. Given the complexity of India's development experience, it would be idle to pretend that everything it did was right but it would be naïve to suggest that everything it did was wrong. From a long term perspective, when compared to most developing countries, the most important success was in creating a thriving political democracy with a mixed economy which provides a viable model for the countries that are making the transition from communism. The Indian experience clearly illustrates the possibility of succeeding in such a arduous venture and at the same time highlights the limitations and pitfalls of development. Chapter 4 has clearly highlighted the institutional constraints within which the Indian

economy works. From 1947 to 1991, although there was consensus about following a state market capitalist path, the pressures from various groups forced the various governments to choose the path of least resistance. This effectively diluted the impact of most policy initiatives - on the plus side it meant that the country avoided the excesses of other developing countries; on the other hand, political compromises meant that even measures that would be beneficial were watered down. After the economic crisis of 1991, initially there was enthusiasm for following a pluralistic neo-liberal economic path to development. But the perceived failure of these policies and the conflicting interests of domestic interest groups has led to the proposed adoption of a corporatist model of development. This confusion is partly a function of the extant political economy where there is a problem in resolving the view points of various pressure groups. These conflicts are best reflected in the financial system where there is a bank oriented stakeholder economy, which is trying to cohabit with a thriving share-market driven domestic industry. We have suggested that the mixed economy within a democratic framework has worked to the advantage of India during the recent crisis - the various institutions that have developed over the past have limited the excesses taking place, especially in the context of short term borrowing by the private sector (which has been one of the main factors leading to the crisis in the rest of Asia), free convertibility of the currency and excessive “crony” capitalism. Although it is the constraints imposed by the institutions and organisations within the political economy that has checked the pace of liberalisation, this ironically, has worked to India’s advantage in the recent crisis, especially in relation to capital controls on foreign currency movements. Notwithstanding the fact that India was one of the “safe havens” during the crisis, there is a obviously a need to focus much more

on the building of institutions and greater transparency within the business system, at the same time quickening the pace of liberalisation. This is especially true if India has to keep up with the rapid changes that are taking place within the global economy with knowledge industries emerging as one of the primary locomotives of economic development.

Chapter 5: Knowledge based exchange: Inalienability and reciprocity

Most of the vast past research on knowledge based competition has tended to rely primarily on transaction cost analysis, and to neglect the salient features of the nature of knowledge as an intangible resource and the difficulties of assessing its value. Recent exceptions include Grant (1996); Choi and Lee (1997); Spender (1996). We believe that the intangible nature of knowledge especially in today's constantly turbulent world, shifts the focus away from products or services being exchanged in the market, towards how the market "identifies" through external cues, certain firms and certifies their resources and value in the market; the identity of the actor in exchange in turn requires a more social, reciprocal and trust based analysis.

In chapter 5, we clarified the distinction between intangible and inalienable. The market value of intangible assets can be known, through high measurement costs; inalienable assets, may not have a market value, and may have value only in organisation specific and situation specific contexts. Although existing research views the accumulation of knowledge as a positive attribute, the process of "exchange" whereby knowledge is acquired or lost is not sufficiently analysed.

There is a need to create frameworks for understanding exchange mechanisms for intangible and inalienable assets such as knowledge.

We provided alternative frameworks based on reciprocity and redistribution, exchange systems traditionally more commonly associated with pre-modern societies (Mauss, 1955; Sahlins, 1972; Simmel, 1978). However, these non-capitalist societies have traditionally developed exchange mechanisms for differentiating between commodities type assets, which are exchanged through the market, and inalienable assets such as knowledge, which are exchanged through reciprocal arrangements. These in turn may be the most effective exchange mechanism for intangible and inalienable assets such as, knowledge.

Chapter 6: Economic geography and International Business

In chapter 5, we had suggested that the nature of exchange of intangible and inalienable goods lead to clustering, so as to facilitate the exchange of tacit information, which is a critical factor in encouraging innovation. In chapter 6, we advocate a greater mix of the research done in the new economic geography with international business research. Although there has been a certain interest within international business on the existence of clustering of industries [Porter 1990], the existence of such networks and clusters have not been fully integrated into the growing research in the new economic geography, which have begun to provide the underlying reasons for the process that such networks and clusters can help to create cities, countries and regions. The fact that a particular firm's location decision may in turn be determined by the location decisions of other firms, and the aggregated benefits of the location make it potentially a crucial area of international business

research. This is especially the case, because if indeed such geographical factors are driving foreign direct investment and firm decisions towards location and strategy, this has substantial implications for public policy and the role of the state towards such firm decisions [Lenway and Murtha 1991].

We applied this to the India to show that the potential increasing returns and agglomeration benefits of the economic integration need to take into account the realities of international business factors such as labour mobility, institutional myopia, political uncertainties. International business research has much to contribute to our better understanding of a rapidly integrating states at different levels of development in India. However, international business will need to incorporate a broader range of interdisciplinary frameworks from economics, psychology, sociology, law, in order to analyse all the complexities of integration.

Chapter 7: Indian Software Industry:

In chapter 7 we tried to apply some of the concepts and frameworks that we analysed in chapters 5 and 6 to study the evolution of the Indian software industry and the emergence of Bangalore as one of the top technopolis in the world. In the context of the Indian software industry, the fact that it was the only industry in the industrial sector in India that was predominantly export oriented was highlighted. In analysing the factors that led to the emergence of this sector, the role of the government in promoting centres of excellence in higher education, its industrial and technology policies was significant. In addition, the existence of a very large English speaking, relatively low wage, labour force is critical to the success of the industry. It is significant that the bulk of the work done by the industry is labour intensive and at the

lower end of the value chain. Any attempt to move up the value chain is plagued by a number of factors including limited availability of venture capital funds, the short-termist profit maximising approach of most Indian software firms and the lack of adequate infrastructure.

Krugman (1991) has identified three factors behind industrial clustering. First, the pooling of a large number of firms of the same industry creates a pool of skilled workers. In industries with increasing returns, the economies of scale encourage the concentration of activities in one or a few places. Second, concentration of industries spawns a greater number of specialized local suppliers, thereby providing greater variety at lower cost. Third, in sectors where the flow of information is vital and is better over shorter distances, clustering has advantages in transmission of knowledge between firms. Thus, central to the logic of geographical clustering is the effort to maximize the benefits from knowledge externalities or spillovers; the sharing of knowledge with other bodies involved with R&D by a firm reflects R&D spillover, as the firm does not pay for that information in a market transaction. In such a cluster, the cost and the burdens of R&D, innovation is shared by networks of regional participants including the firms, suppliers, the regional work force, the universities and research institutes, and government bodies. In the context of Bangalore, the locational advantages of the city revolved around the availability of labour due to the vast number of institutes of technology, the pleasant climatic conditions, and the infrastructure in the city. In addition as the number of firms reached a critical mass, the employees of existing firms started new firms in the city leading to clustering. But it is clear that the phenomenal growth of the city will slow down as the very factors

that led to its' growth are today unable to meet the increasing demands of the industry.

Chapter 8: Dynamic Identity: Stakeholder systems and knowledge industries

In chapter 8, we tried to “marry” the two broad streams of research, i.e., financial capital allocation in different business systems and knowledge, by providing a framework that would be useful in both streams. The purpose of the chapter was twofold. Firstly, to focus on the importance of measurement costs and the problem of communicating identity, in stakeholder systems and knowledge based industries. Secondly, to provide a framework for overcoming the inherent ambiguity and increased measurement costs associated with stakeholder systems and knowledge-based industries, founded on indirect measurement indicators or “indices” which define dynamic identity.

The role of institutional certification, external measurement of quality and assessment of value beyond general market information was treated as fundamental in stakeholder systems and knowledge-based industries, where there is high intangibility of value and content (Spender, 1997; Spender & Grant, 1997). Institutional certification, in terms of “dynamic identity”, is defined by external indices: list of clients; reputation for successful innovation; networks of partners or competitors; evaluation by external intermediaries. Firms compete in the market against other firms; however, they also maintain long-term relations with these institutional certification mechanisms, which provide a system of indirect measurement of performance. We provide a framework for integrating these external measurement factors into stakeholder theory and identity theory (Dutton and Jackson, 1987;

Donaldson and Preston, 1995; Freeman, 1984; Mitchell, et al. 1997; Rowley, 1997; Jones, 1995; Wood, 1991a, 1991b). Moreover our framework is a dynamic one that seeks to uncover the rules, processes or principles for strategic organizing on which quasi-stability of future outcomes may be attributed, and thus contribute towards the survivability of firms in complex competitive environments such as stakeholder business systems and knowledge-based industries (Sanchez, 1997).

SCOPE FOR FURTHER RESEARCH:

As suggested earlier, overall we are largely in “virgin” territory as there is very little research that has been carried out in the field of finance and knowledge in emerging economies, especially within a comparative business system and there are a lot of areas in the research effort which need to be developed further. The research on the political embeddedness of business systems in chapter 2 could be developed in at least the following two ways. Firstly, there is a requirement for further elaboration of key concepts and for empirical works to test the validity of the typologies, especially between Anglo-Saxon and Communitarian business systems suggested in this chapter. It is possible that the Anglo-Saxon business system may be especially advantageous in certain industries, such as high technology, which have a high intangibility and need to raise capital rapidly factor; in the sense that we have shown how national institutions and the role of domestic stakeholders (Freeman 1984) can provide strategic constraints and advantages on firm performance in the global political economy. Secondly, this type of dual grouping of business systems could be the starting point of research on the Asian economic, business crisis. At present, the analysis of the Asian crisis has tended to focus on broad, macro-economic issues such

as exchange rates; comparative business system and governance approach could yield further insights into this continuing global problem.

In chapter 3 on the Asian financial success and crisis, we analyzed the Asian economic crisis through the role played by two major factors: “knowledge” and “financial capital” allocation. We believe that an interdisciplinary framework incorporating international business, international economics and economic development can help to provide a more systematic understanding of not only past Asian economic success, but the present Asian economic crisis. In the context of the various issues raised in this chapter, there are a host of issues that warrant further research. First, there is a need to compare the Asian business systems that are presently in crisis, with those in less affected emerging business systems, such as in Eastern Europe, in order to compare and contrast the success and failure factors. Second, further empirical work and case studies on the nature of financial capital and knowledge creation and allocation in Asian business system is needed. Third, there is the need for an empirical study, testing the foundations of pre-negotiation frameworks in overcoming psychic distance to increase effective international negotiations in Asia. Fourth, further conceptual work is warranted in the area of which types of firms, or societies generally are most skilled or amenable to shareholder versus stakeholder systems, and their different approaches to international negotiations. The economic and business crisis in Asia today adds an additional urgency to such additional research agendas.

In the context of the role of political embeddedness in shaping the business system and the nature of allocation of financial capital, a lot of empirical work needs to be carried out. First, there are very few studies that have looked at the business

system prevalent in India. To do this different aspects of the business system especially the role of various institutions and organisations and the links between them, needs to be researched in detail. The allocation of financial capital is only one of the aspects, albeit significant, of the business system. Even in this context the entire area of corporate governance and the various issues related to it is under-researched or non-existent. This chapter is just a beginning of this process and provides a broad overview of the issues that are relevant and need to be explored further.

In the context of chapter 5 on knowledge based exchange, two areas warrant further research. Firstly, there is a need to further develop conceptually, our preliminary frameworks on the mechanisms and nature of effective exchange. Further research of informal, relationship type exchange without the extensive use of contract law, can be enhanced by studying the nature of exchange in premodern or noncapitalist societies (Mauss, 1955; Malinowski, 1966; Sahlins, 1972; Simmel, 1978). Secondly, more in depth empirical work needs to be carried out in the effectiveness of various exchange mechanisms for the exchange of knowledge assets. Such empirical work needs to clearly distinguish exchange of alienable, commodities from exchange of inalienable knowledge type assets.

In the context of chapter 6 regarding economic geography and international business there are two areas that warrant further research. Firstly, an empirical study of the role of different incentives offered by different states in India that have influenced the led to the clustering of specific industries. Secondly, there is a need to address the public policy and governmental issues concerning the benefits of agglomeration effects as advocated in the new economic geography research, and how in order to achieve these benefits, there is a need to take into account the other non-

economic factors such as institutional setting, social and psychological aspects of labor mobility; this chapter began elements of this process by applying the frameworks of the new economic geography and international business to the continuing geographic integration within the India.

In chapter 7 we provided a broad overview of the Indian software sector and the factors that have led to the emergence of Bangalore as one of the major cities for software development. Like the rest of Indian industry, there is a yet inadequate research of this industry and almost all the aspects of the industry need further research. The lack of research, as in the case of the overall Indian economy, is mainly a function of the problems encountered in collecting data. The culture of secrecy that pervades most aspects of Indian life makes it very difficult to get access to data, interviews especially when one has to meet tight deadlines. A bloated inefficient bureaucracy at almost all levels of the government believes that "information is power" and is thus reluctant to part with the same, however trivial or innocuous the information. In addition, in a large number of areas there is as yet inadequate original data available - they have not been collected in the first place and most of what passes off as data are estimates based on trends. We can only echo Herbert Spencer's thoughts that "the ultimate result of shielding men from the effects of folly is to fill the world with fools."

In the context of chapter 8, on the role of dynamic identity in stakeholder systems and knowledge industries, further research is warranted on the following issues. Firstly, there is a need to analyze in more depth the way organization value can be measured and how stakeholders can interact with the organizations involved in external certification, in facilitating such measurement. The shift of many of the

world's mature economies towards knowledge based industries, will make such research issues increasingly important. Secondly, there is a need to further research the dynamics of the relationship between market and social structure. The anonymous exchange of economics based analysis can serve as a starting point for analyzing competition; but the realities of social structure and indirect measurement drivers or indices need to be incorporated into stakeholder research.

REFERENCES

- Acharya, S. 1988. India's Fiscal Policy in REB Lucas & GF Papanek (eds) *The Indian Economy: Recent Developments and Future Prospects*. Bombay: Oxford University Press.
- Ackerman, R.W. 1975. *The social challenge to business*. Cambridge, MA: Harvard University Press.
- Aghion, P. & P. Bolton. 1997. A theory of trickle-down growth and Development. *Review of Economic Studies*, 64: 151-172.
- Aghion, P. & P. Howitt. 1992. A model of growth through creative Destruction. *Econometrica*, 60: 323-351.
- Ahluwalia, I.J. 1988. Industrial Policy and industrial performance in India. In R.E.B. Lucas and G.F. Papanek (eds). *The Indian Economy*. New Delhi: Oxford University Press, 151-62.
- Ahluwalia I.J. & I.M.D. Little. 1998. India's Economic Reforms and Development. New Delhi: Oxford University Press.
- Ahmad, A. 1985. The making of science and technology plan. In R.S. Ganapathy eds. *Public Policy and Policy Analysis in India*. New Delhi: Sage Publications: 179-207.
- Akerlof, G. & L. Katz. 1989. Workers trust funds and the logic of wage profiles. *Quarterly Journal of Economics*, 104: 525-537.
- Akerlof, G. & J. Yellen. 1985. Unemployment through the filter of memory.
- Akerlof, G. and P. Romer. 1993. Looting: the economic underworld of Bankruptcy for profit. *Brookings Papers on Economic Activity*, 2: 2-60.
- Albert, M. 1991. *Capitalism against Capitalism*. Centre for Economic Research, Paris.
- Alchian, A. 1965. *Economic forces at work*. Indianapolis: Liberty Press.
- Alkhafaji, A.F. 1989. *A stakeholder approach to corporate governance: Managing in a dynamic environment*. New York: Quorum Books.
- Allen, F. 1993. Stock markets and resource allocation. In Colin Mayer and Xavier Vives (eds), *Capital Markets and Financial Intermediation*. Cambridge, UK: Cambridge University Press.

- Altonji, J. 1993. Accounting for uncertain educational outcomes in estimating the return to education. *Journal of Labor Economics*, 11: 48-83.
- Amiti, M. 1998. New trade theories and industrial location in the EU: a survey of Evidence. *Oxford Review of Economic Policy*, 14: 45-53.
- Amsden, A. 1989. *Asia' next giant: South Korea and late industrialization*. New York: Oxford University Press.
- Appadurai, A. 1986. *The social life of things: commodities in cultural perspective*. Cambridge: Cambridge University Press.
- Arlow, P. & M. Gannon. 1982. Social responsiveness, corporate structure, and economic performance. *Academy of Management Review*, 7: 235-241
- Arnott, R. & J. Stiglitz. 1990. Moral hazard and nonmarket institutions: dysfunctional crowding out or peer monitoring. *American Economic Review*. 80: 179-190.
- Arthur, B. (1996) "Increasing returns and the new world of business." *Harvard Business Review*. 74: 100-109.
- Athey, M.J. & P.S. Laumas. Internal funds and corporate investment in India. *Journal of Development Economics*, 45: 287-303
- Atje, R. & B. Jovanovic. 1993. Stock markets and development. *European Economic Review*. 37: 632-640.
- Audretsch, D. & M. Feldman. 1996. R & D spillovers and the geography of innovation and production. *American Economic Review*, 86: 641-652.
- Audretsch, D. & P. Stephan. 1996. Company-scientist locational links: the case of biotechnology. *American Economic Review*, 86: 253-273.
- Audretsch, D. 1995. *Innovation and industry evolution*. Cambridge, MA: MIT Press.
- Audretsch, D. 1998. Agglomeration and the location of innovation activity. *Oxford Review of Economic Policy*, 14: 18-29.
- Aupperle, K., Carroll, A., & Hatfield, J. 1985. An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal*, 28: 446-463.
- Bain, J.S. 1956. *Barriers to new competition*. Cambridge, MA: Harvard University Press.
- Bain, J.S. 1959. *Industrial organization*. New York: Wiley.
- Bajpai, B. 1995. Economic Reforms in Developing Countries: Theory and Evidence. *Economic and Political Weekly*. 14 January. 113-18.

- Balassa, B. 1971. *The Structure of Protection in Developing Countries*. Baltimore: Johns Hopkins University Press.
- Balasubramanian, N. 1993. *Corporate Financial Policies and Shareholders Returns: The Indian Experience*. Bombay: Himalaya Publishing House.
- Bardhan, P. 1984. *The Political Economy of Development in India*. Oxford: Basil Blackwell.
- Barua, S.K. 1993. *SEBI's regulatory priorities: need for change*. Working paper, Indian Institute of Management, Ahmedabad.
- Barzel, Y. 1982. Measurement cost and the organisation of markets. *Journal of Law and Economics*, 25: 27-48.
- Barzel, Y. 1997. *Economic Analysis of Property Rights*. Cambridge, UK: Cambridge University Press.
- Bauer, P.T. 1971. *Dissent on Development: Studies and Debates in Development Economics*. London: Weidenfeld & Nicolson.
- Bauer, P.T. 1984. *Reality and Rhetoric*. London: Weidenfeld.
- Beale, H. & T. Dugdale. 1975. Contracts between businessmen; planning and the use of contractual remedies. *British Journal of Law and Society*. 40: 45-60.
- Beamish, P.W. 1988. *Multinational joint ventures in developing countries*. London: Routledge.
- Beamish, P. & J. Banks. 1987. Equity joint ventures and the theory of the multinational enterprise. *Journal of International Business Studies*. 19: 1-16.
- Benito, G. & G. Gripsrud. 1992. The expansion of foreign direct investment: discrete rational location choices or a cultural learning process. *Journal of International Business Studies*, 23: 461-476.
- Bernstein, L. 1992. Opting out of the legal system: extralegal contractual relations in the diamond industry. *Journal of Legal Studies*, 21: 115-157.
- Besley, T. 1995. Nonmarket institutions for credit and risk sharing in low-income countries. *Journal of Economic Perspectives*. 9: 115-127.
- Bettelheim, C. 1968. *India Independent*. New York: Monthly Review Press
- Bhagwati, J. & T.N. Srinivasan. 1993. *India's Economic Reforms*. Ministry of Finance, Government of India.
- Bhagwati, J. 1958. Immiserizing Growth: A Geometrical Note. *Review of Economic Studies*. 25.
- Bhagwati, J. 1988. *Protectionism*. Cambridge: MIT Press.

- Bhagwati, J. 1993. *India in Transition: Freeing the Economy*. Oxford: Clarendon Press, 50.
- Bhargava, S.W. 1993. Software from India? Yes it's real. *Business Week*. 18 January, 77.
- Bhatnagar, S.C. 1986. Impact of computers on Indian society. In H. Sackman (ed), *Comparative Worldwide National Computer Policies*. Amsterdam: Elsevier Science Publisher. 341-52.
- Bhatnagar, S.C. 1992. Information technology and socio-economic development, in *Social implications of computers in developing countries*. S.C. Bhatnagar & M. Odedra (eds). New Delhi: Tata McGraw Hill, 1-10.
- Bhatnagar, S.C & R.Jain. 1991. A realistic assessment of India's software exports. *Vikalpa*. 16(3): 35-46.
- Bhatt, V.V. 1994. Japan: Main bank system and India: Lead bank system. *International Journal of Development Banking*, 12 (1)
- Blanchard, O. & L. Katz. 1992. Regional evolutions. *Brookings Papers on Economic Activity*, 1: 1-75.
- Blanchard, O. & L. Summers. 1988. Hysteresis and the European Unemployment problem. In R. Cross [editor], *Unemployment Hysteresis and the Natural Rate Hypothesis*. Basil Blackwell, New York.
- Blau, P. 1975. *Approaches to the Study of Social Structure*. New York: Free Press.
- Boddewyn, J.J.. 1988. Political aspects of MNE theory. *Journal of International Business Studies*. 13: 341-363.
- Boddewyn, J.J. & T. Brewer. 1994 International-business political behavior: new theoretical directions. *Journal of International Business Studies*. 19: 119-143.
- Boer K. & G. Fell. 1993. A fresh look at India. *The McKinsey Quarterly*, No. 2: 38-42.
- Bogdan, R. & Taylor, S. J., 1975, *Introduction to Qualitative Research Methods*, John Wiley & Sons, New York, London, Sydney, Toronto
- Boisot, M. & J. Child. 1977. The iron law of fiefs: bureaucratic failure and the problem of governance in the Chinese economic reforms. *Administrative Science Quarterly*. 33: 507-527.
- Bonacich, P. 1987. Power and centrality: A family of measures. *American Journal of Sociology*, 92: 1170-1183.

- Bose, A. 1990. On economic Stagnation, Past Development Strategy and New-Economic Policy - A Summing Up. In R.A. Chaudhury et al., eds., *The Indian Economy and Its Performance Since Independence*. New Delhi: Oxford University Press.
- Bourdieu, P. & Wacquant, L. 1992. *An invitation on reflexive sociology*. Chicago, IL: University of Chicago Press.
- Bourdieu, P. 1977. *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Bourdieu, P. 1990. *Sociology in question*. London: Sage.
- Bowles, S. & H. Gintis. 1996. Efficient redistribution: new rules for markets, states and communities. *Politics and Society*, 24: 307-342.
- Boyd, J. & B. Smith. The co-evolution of the real and financial sectors in the growth process. *World Bank Economic Review*. 10: 371-396.
- Brass, P. 1980. The politicisation of the peasantry in a North Indian state. *Journal of Peasant Studies*, Vol. 7, no.4: 395-426.
- Brass, P. 1992. *The Politics of India since Independence*. Cambridge: Cambridge University Press.
- Brenner, S.N. & Cochran, P. 1991. The stakeholder theory of the firm: Implications for business and society theory and research. In J.J. Brummer (Ed.), *Corporate responsibility and legitimacy: An interdisciplinary analysis*. New York: Greenwood Press.
- Brewer, T. 1992. An issue-area approach to the analysis of MNE-government relations. *Journal of International Business Studies*, 18: 295-309.
- Brewer, T.L. 1993. Government policies, market imperfections, and foreign direct investment. *Journal of International Business Studies*, 24: 101-120.
- Brouthers, K. & G. Bamossy. 1997. The role of key stakeholders in international joint venture negotiations: case studies from Eastern Europe. *Journal of International Business Studies*, 23: 285-308.
- Brunner, H.P. 1991. Building technological capacity: a case study of the computer industry in India 1975-87. *World Development*. 19(12): 1737-51.
- Bruno, M. 1972. Domestic resource costs and effective protection: clarification and synthesis. *Journal of Political Economy*. 80: 16-33.
- Buchanan, J. 1965. An economic theory of clubs. *Economica*, 32: 1-14.
- Buchanan, J. 1995. Federalism as an ideal political order and an objective for constitutional reform. *Publius*, 25: 19-27.

- Buckley, F.. 1997. The Canadian keiretsu. *Journal of Applied Corporate Finance*. 9: 46-56.
- Buckley, P. 1990. Problems and developments in the core theory of international business. *Journal of International Business Studies*. 21: 657-665.
- Buckley, P. 1996. The role of management in international business theory: a meta-analysis and integration of the literature on international business and international management. *Management International Review*, special issue. 36: 7-54.
- Buckley, P & M. Casson. 1976. *The future of multinational enterprise*. London: Macmillan and Co.
- Burt, R. 1992. *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Cadmic, C. 1992. Reputation and predecessor selection: Parsons and the institutionalists. *American Sociological Review*, 57: 421-445.
- Caprio, G., I. Atiyas & J. Hanson. 1994. *Financial reform: theory and Experience*. New York: Cambridge University Press.
- Card, D. & A. Krueger. 1992. Does school quality matter: returns to education and the characteristics of public schools in the United States. *Journal of Political Economy*, 100: 1-40.
- Carmichael, L. 1990. Efficiency wage models of unemployment: one view. *American Economic Review*, 28: 269-295.
- Carroll, A.B. 1979. A three-dimensional conceptual model of corporate social performance. *Academy of Management Review*, 4: 497-505.
- Carroll, A.B. 1989. *Business and society: Ethics and stakeholder management*. Cincinnati: South-Western Publishing Company.
- Carter, R. & S. Manaster. 1990. Initial public offerings and underwriter reputation. *Journal of Finance*, 45: 1045-1068.
- Casson, M. 1996. Economics and anthropology - reluctant partners. *Human Relations*. 49: 1151-1181.
- Caves, R. 1971. International corporations: The industrial economics of foreign investment. *Economica*, 38: 1-27.
- Chakravarty, S. 1987. *Development Planning: The Indian Experience*. Oxford: Clarendon Press.
- Chamberlin, E.H. 1933. *The theory of monopolistic competition*. Cambridge, MA: Harvard University Press.

- Chen, M. 1995. *Asian Management Systems: Chinese, Japanese and Korean styles of Business*. New York: Thomson Business Press
- Cho, In-Koo & D. Kreps. 1987. Signaling games and stable equilibria. *Quarterly Journal of Economics*, 102: 179-221.
- Choi, C.J. 1994. Contract enforcement across cultures, *Organisation Studies*. 15: 673-682.
- Choi, C.J., S.H. Lee & J.B. Kim. 1996. *Countertrade and international business enforcement*. Paper presented at the Academy of International Business, Vancouver, B.C., Canada.
- Choi, C.J., & Lee, S.H. 1997. A knowledge based view of co-operative interorganizational relationships, in P. Beamish, P./Killing, P. (eds.), *Co-operative Strategies: European perspectives*. Massachusetts: Josey-Bass.
- Choi, C.J., Lee, S.H. & Kim, J.B. Contractual uncertainty and transactional governance in emerging economies, *Journal of International Business Studies*, forthcoming.
- Choi, C.J. and M. Raman. 1997. The Emerging Market Business System: Reappraising the Global Triad. *The Gyosei Journal*. Vol. 1, No. 3, December: 47-58.
- Choi, C.J, M. Raman, O. Oussoltseva & S.H. Lee. Political embeddedness in the new global triad. *Management International Review*, forthcoming.
- Choi, C.J, Raman M, & Lee, S.H. 1997. Innovation and Revelation of Invisible Assets: The Role of Indices. *Western Academy of Management*, Lake Tahoe, California, April 3-5
- Choi, C.J, M. Raman & S.H. Lee, 1997. Knowledge based competition. *Conference on "Reputation"*, Stern School of Business, New York University, March 1997
- Choi, C.J., M. Raman, J.B. Kim. 1996. "Critical Mass in Multi-Media Industries," *British Academy of Management*, Birmingham.
- Christaller, W. 1933. *Central places in southern Germany*. Jena: Fischer.
- Clarkson, M.B.E. 1991. Defining, evaluating, and managing corporate social performance: A stakeholder management model. In J.E. Post (Ed.), *Research in corporate social performance and policy*: 331-358. Greenwich, CT: JAI Press.
- Cochran, P.L. & Wood, R.A. 1984. Corporate social responsibility and financial performance. *Academy of Management Journal*, 27(1): 42-56.
- Cohen, W. & D. Levinthal. 1990. Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35: 128-152.

- Coleman, J. 1990. *Foundations of social theory*. Cambridge, MA: Belknap Press of Harvard University Press.
- Coleman, J. 1990. Social capital in the creation of human capital. *American Journal of Sociology*. 94: S95-S120. (a)
- Collins, R. 1992. *Sociological insight*. Oxford: Oxford University Press.
- Cornell, B. & A. Shapiro. 1987. Corporate stakeholders and corporate finance. *Financial Management*, 16: 5-14.
- Coveney, P. & R. Highfield. 1995. *Frontiers of complexity: The search for order in a chaotic world*. New York: Ballantine Books.
- Currie, D. 1998. Will the Euro work? *Economist Intelligence Unit*. London.
- Dahl, R.A. 1989. *Democracy and Its Critics*. New Haven: Yale University Press.
- Darity, W. & A. Goldsmith. 1996. Social psychology, unemployment and macroeconomics. *Journal of Economic Perspectives*, 10: 121-140.
- Dasgupta, P.S., S. Marglin and A.K. Sen, 1972, *Guidelines for Project Evaluation*, New York: United Nations.
- D'Aveni, R. 1996. A multiple-constituency, status-based approach to interorganizational mobility of faculty and input-output competition among top business schools. *Organization Science*, 7: 166-189.
- Davis, K. 1973. The case for and against business assumption of social responsibilities. *Academy of Management Journal*, 16: 312-322.
- Dawkins, R. 1976. *The selfish gene*. Oxford: Oxford University Press.
- Demirguc-Kunt, A. & R. Levine. 1996. Stock market development and Financial Intermediaries: stylized facts. *World Bank Economic Review*, 10: 291-322.
- Demirguc-Kunt, A. & V. Maksimovic. 1996. Stock market development and firm financing choices. *World Bank Economic Review*. 19(2): 350-72.
- Desai, A.V. 1993. *My Economic Affair*. New York: Wiley Eastern.
- Devlin, K. & D. Rosenberg. 1991. *Logic and information*. Cambridge: Cambridge University Press.
- Dhillon, N. 1993. *Market regulations and stock market activity*. Doctoral dissertation. Indian Institute of Management, Ahmedabad.
- Diwan, R. & C. Chakraborty. 1993. Is India's economy competitive? *Economic and Political Weekly*. 6 November, 2478-82.

- Dixit, A. 1996. *The Making of Economic Policy*. Cambridge: MIT Press.
- Donaldson, T. & L.E. Preston. 1995. The stakeholder theory of the corporation: Concepts, evidence and implications. *Academy of Management Review*, 20: 65-91.
- Douglas, M. & B. Isherwood. 1979. *The world of goods. Towards an anthropology of consumption*. London: Allen Lane.
- Doz, Y. & C.K. Prahalad. 1984. Patterns of strategic control within multinational corporations. *Journal of International Business Studies*. 15: 55-72.
- Drazin, R. & L. Sandelands. 1992. Autogenesis: A perspective on the process of organizing. *Organization Science*, 3: 230-249.
- Dreze, Jean & A. Sen. 1995. *India: Economic Development and Social Opportunity*. Delhi: Oxford University Press.
- Dreze, Jean & A. Sen. 1996. *Indian Development: Regional Perspectives*. Delhi: Oxford University Press.
- Dunning, J. 1993. Internationalizing Porter's diamond. *Management International Review*, special edition, 33: 7-15.
- Dunning, J. 1996. The geographical sources of the competitiveness of firms: some results of a new survey. *Transnational Corporations*, 5: 1-29.
- Dunning, J. 1996. Reappraising the eclectic paradigm in an age of alliance capitalism, *Journal of International Business Studies*. 26: 461-480.
- Durkheim, E. 1951. *Suicide: a study in sociology*. New York: Free Press.
- Dutton, J.E. & S.E. Jackson. 1987. Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, 12(1): 76-90.
- Easterbrook, F. 1997. International corporate differences: markets or law? *Journal of Applied Corporate Finance*. 9: 23-29.
- Easterby-Smith, M.R. Thorpe & A. Lowe. 1991, *Management Research*, SAGE, London, Newbury Park, New Delhi.
- Economic Times, 1999. *Infotech holds sway with 8% of BSE's market cap*. Mumbai, January 25
- Economist. 1994. *Blinking in the sunlight*. April 4th: 88-90.
- Economist. 1995. *India Survey*. January 21st 1995: 20.
- Eichengreen, B. 1997. *European monetary unification*. Cambridge: MIT Press.

- Eisenhardt, K.M. 1989. Agency theory: An assessment and review. *Academy of Management Review*, 14: 57-74.
- Ellickson, R. 1991. *Order without law*. Cambridge, MA: Harvard University Press.
- Elster, J. & K. Moene. 1989. *Alternatives to capitalism*. Cambridge: Cambridge University Press.
- Elster, J. 1989. *The Cement of Society*, Cambridge U.K.: Cambridge University Press.
- Ethier, W. 1982. National and international returns to scale in the modern theory of international trade. *American Economic Review*, 20: 100-127.
- Etzioni, A. 1996. The responsive community: a communitarian perspective. *American Sociological Review*. 61: 1-11.
- Etzioni, A. 1988. *The moral dimension: toward a new economics*. New York: Free Press.
- Evan, W.M. & R.E. Freeman. 1988. A stakeholder theory of the modern corporation: Kantian capitalism. In T. Beauchamp & N. Bowie.(Eds.), *Ethical theory and business*: 75-93. Englewood Cliffs, NJ: Prentice Hall.
- Euromoney. 1995. The numbers look right. In *India: no turning back*. Supplement to March.
- Fahey, L. & V.K. Narayanan. 1986. *Macroenvironmental analysis for strategic management*. St. Paul, MN: West.
- Feld, S. 1981. The focused organization of social ties. *American Journal of Sociology*, 86: 1015-1034.
- Fialkowski, K. 1990. Software industry in the developing countries: the possibilities. *Information Technology for Development*. 5(2): 187-94.
- Fleming, J.E. 1981. Public issues scanning. In L.E. Preston (Ed.), *Research in corporate social performance and policy*, vol. 3: 154-174. Greenwich, CT: JAI Press.
- Francis, C.K. 1991. Towards a healthy capital market. *Yojana*. March, Vol. 35:11-13.
- Frank, R.H. & P.J. Cook. 1995. *The winner-take-all society*. New York: Free Press.
- Franks, J. and C. Mayer. 1997. Corporate ownership and control in the U.K., Germany and France. *Journal of Applied Corporate Finance*. 9, 1997: 30-45.
- Frederick, W.C. 1986. *Theories of corporate social performance: Much done, more to do*. Working paper, University of Pittsburgh, Graduate School of Business.

- Freeman, R.E. 1984. *Strategic management: A stakeholder approach*. Boston: Pitman/Ballinger.
- Fruin, M. 1992. *The Japanese enterprise system*. Oxford: Oxford University Press.
- Fry, Maxwell. 1995. *Money, interest and banking in economic development*. Baltimore: John Hopkins University Press.
- Fukuyama F. 1995. "Social Capital and the Global Economy," *Foreign Affairs*, Vol. 74, No.5, Sept.-Oct.: 89-103.
- Gallup, J. & J. Sachs. 1998. *Geography and economic development*. Harvard Institute for Economic Development.
- Garrett, G. & G. Tsebelis. 1996. An institutional critique of intergovernmentalism. *International Organization*, 50: 269-29
- Garrett, G. 1993. The politics of Maastricht. *Economics and Politics*, 5: 103- 123.
- Gartner, S.S. & G.M. Segura. 1997. Appearances can be deceptive: Self-selection, social group identification and political mobilization. *Rationality and Society*, 9(2): 131-161.
- Gartner, S.S. & R.M. Siverson. 1996. War outcome and war expansion. *Journal of Conflict Resolution*, 40: 4-15.
- Gatignon, H. & E. Anderson. 1988. The multinational corporation's degree of control over foreign subsidiaries. *Journal of Law, Economics and Organization*, 4: 305-336.
- Gell, A. 1982. *The market wheel: symbolic aspects of an Indian tribal market*. Man, 17: 470-491.
- Gell-Mann, M. 1994. *The Quark and the Jaguar: Adventures in the Simple and the Complex*. London, UK: Little, Brown and Company.
- Geringer, J. & H. Louis. 1991. Strategic determinants of partner selection criteria in international joint ventures. *Journal of International Business Studies*. 22(2): 23-39.
- Gerlach, M. & J. Lincoln. 1992. The organisation of business networks in the U.S. and Japan, in Eccles, R./Nohria, N. (eds.), *Networks and Organisations*, Boston: Harvard Business School Press.
- Ghoshal, S. & J. Moran. 1996. Bad for practice: a critique of the transaction cost theory. *Academy of Management Review*, 21(2): 13-45.
- Gill, S. 1996. Globalisation, market civilisation, and disciplinary neo-liberalism. *Millenium*. 24(3): 399-423.

- Giovannini, A. & Martha de Melo. 1993. Government revenue from financial repression. *American Economic Review*, 83: 953-963.
- Goldsmith, A. & W. Darity. 1992. Social psychology, unemployment exposure and equilibrium unemployment. *Journal of Economic Psychology*, 13: 499-471.
- Gomes-Casseres, B. 1990. Firm ownership preferences and host government restrictions: an integrated approach. *Journal of International Business Studies*. 21: 1-22.
- Goodpaster, K.E. 1991. Business ethics and stakeholder analysis. *Business Ethics Quarterly*, 1(1): 53-73.
- Gough, K. & H. Sharma (eds). 1973. *Imperialism and Revolution in South Asia*. New York: Monthly Review Press.
- Government of India. 1969. *Fourth Five Year Plan*. New Delhi: Government of India, 239.
- Government of India, Sarkaria Commission. 1987. *Report of the Commission on Centre-State Relations*. New Delhi.
- Government of India. 1984. *New Computer Policy*. Department of Electronics. New Delhi: Government of India.
- Government of India. 1986. *Policy on Computer Software Exports, Software Development and Training*. Department of Electronics. New Delhi: Government of India.
- Government of India. 1991. *Statement on Industrial Policy*. Ministry of Industry. New Delhi: Government of India.
- Grafstein, R. 1995. Group identity, rationality and electoral mobilization. *Journal of Theoretical Politics*, 7: 181-200.
- Granovetter, M. 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91: 481-510.
- Grant, R.M. 1996. Knowledge, strategy and the theory of the firm. *Strategic Management Journal*. 17: 109-122.
- Gray, B. 1989. *Collaborating: Finding common ground for multiparty problems*. San Francisco: Jossey-Bass.
- Greenaway, D. & R. Hine. 1991. Intra-industry specialisation, trade expansion and adjustment in the European economic space. *Journal of Common Market Studies*, 29: 603-622.
- Greenwald, B. & J. Stiglitz. 1986. Externalities in markets with imperfect information and incomplete markets. *Quarterly Journal of Economics*. 101, May: 229-64.

- Gregory, C.A. 1982. *Gifts and commodities*. London: Academic Press.
- Grief, A. 1993. Contract enforceability and economic institutions in early trade: the Maghribi traders' coalition. *American Economic Review*. 83, 1993: 525-548.
- Grosse. R. & J. Behrman. 1992. Theory in International Business. *Transnational Corporations*. Vol. 1, No. 1: 93-124.
- Grossman, G. & E. Helpman. 1991. Quality ladders in the theory of growth. *Review of Economic Studies*, 58: 43-61.
- Gudeman, S. 1986. *Economics as culture: models and metaphors of livelihood*. London: Routledge and Kegan Paul.
- Guha, A. 1990. *Economic Liberalization, Industrial Structure and Growth in India*. New Delhi: Oxford University Press.
- Gupta, L.C. 1992. *Stock exchange trading in India: Agenda for reform*. New Delhi: Society for Capital Market Research and Development.
- Gupta, R. 1991. *Revamping stock exchange operations - some suggestions*. Working paper no. 922, Jan-March. Indian Institute of Management, Ahmedabad.
- Gupta, R. 1992. *Development of the capital market in India: A regulatory perspective*. Working paper no. 997, Jan-March. Indian Institute of Management, Ahmedabad.
- Gupta, S.P. 1994. Debt crisis and economic reform. *Economic and Political Weekly*. 4 June, 1411-18.
- Hanna, N, et al. 1992. *India - Information Technology Development & Diffusion*. Washington, DC: World Bank.
- Hanson, G. 1996. Localization economies, vertical organization, and trade. *American Economic Review*, 86: 1266-1278.
- Hardin, R. 1982. *Collective Action*. Johns Hopkins University Press, Baltimore.
- Harrison, S.S. 1960. *India: The Most Dangerous Decades*. Princeton: Princeton University Press.
- Hart, O. & J. Moore. 1990. Property rights and the nature of the firm. *Journal of Political Economy*, 48: 1119-1158.
- Haug. P. 1991. Regional formation of high technology services industries. *Environment and Planning*. 23: 869-84.
- Haunschild, P. 1994. How much is that company worth? Interorganizational relationships, uncertainty and acquisition premiums. *Administrative Science Quarterly*, 39: 391-411.

- Hayek, F. 1967. *Studies in philosophy, politics and economics*. Chicago: University of Chicago Press.
- Hayek, F. 1945. The use of knowledge in society. *American Economic Review*, 35: 510-530.
- Hebbar, K.M. 1988. Computer education - Indian perspective. In P.V.V Rao and P. Sadanandan (eds). *Modern Trends in Information Technology*. Bombay: Tata McGraw-Hill. 477-82.
- Heeks R.B. 1990. Technology policy making as a social and political process: liberalizing India's software policy. *Technology Analysis & Strategic Management*. 2(3): 275-91.
- Heeks, R.B. 1991. New technology and international divisions of labour: a case study of the Indian software industry. *Science, Technology & Development*. 9(1/2): 97-106.
- Heeks, R.B. 1995. Import liberalisation and development of the Indian computer industry. *Economic and Political Weekly*. 26 August, M82-M93.
- Heeks, R.B. 1996. *India's software industry: state policy, liberalisation and industrial development*. New Delhi: Sage Publications.
- Heil, O. & T. Robertson. 1991. Towards a theory of competitive market signalling: A research agenda. *Strategic Management Journal*, 12: 403-418.
- Hennart, J. 1982. *A theory of multinational enterprise*. Ann Arbor, Mich.: University of Michigan Press.
- Hicks, J. 1969. *A theory of economic history*. Oxford: Clarendon Press.
- Hill, C. & T.M. Jones. 1992. Stakeholder-agency theory. *Journal of Management Studies*, 29: 131-154.
- Hill, C. 1995. National institutional structures, transaction cost economizing and competitive advantage. *Organisation Science*. 6: 119-131.
- Hirsch, P. & M. Lounsbury. 1996. Rediscovering volition: the institutional economics of Douglass C. North. *Academy of Management Review*, book review essay, 21: 872-884.
- Hirschman, A.O. 1958. *The Strategy of Economic Development*. New Haven: Yale University Press.
- Hirschman, A. 1994. Social conflict as pillar of democratic society. *Political Theory*, 22: 15-27.
- Hirshleifer, J. 1980. *Price theory and applications*. Englewood Cliffs, NJ: Prentice-Hall.

- Hofstede, G. 1980. *Culture's consequences: international differences in work related values*. Beverly Hill, California: Sage Publications.
- Holland, J.H. 1995. *Hidden order: How adaptation builds complexity*. Reading, MA: Addison-Wesley.
- Horowitz, D.L. 1985. *Ethnic groups in conflict*. Berkeley, CA: University of California Press.
- Hosmer, L. 1995. Trust: The connecting link between organizational theory and philosophical ethics. *Academy of Management Review*, 20: 379-403.
- Humphrey, C. & S. Hugh-Jones. 1992. *Barter, exchange and value*. Cambridge: Cambridge University Press.
- Inkpen, A. & P. Beamish. 1997. Knowledge, bargaining power and international joint venture stability. *Academy of Management Review*, 22: 177-202.
- Inman, R. & D. Rubinfeld. 1997. Rethinking federalism. *Journal of Economic Perspectives*, 11: 43-64.
- Itami, H. & T.W. Roehl. 1987. *Mobilizing invisible assets*. Cambridge, MA: Harvard University Press.
- Jackson, S.E. & J.E. Dutton. 1988. Discerning threats and opportunities. *Administrative Science Quarterly*, 33: 370-387.
- Jacobs, N. 1985. *The Korean Road to Modernization and Development*. Urbana: University of Illinois Press.
- Jacobson, R. 1992. The Austrian school of strategy. *Academy of Management Review*, 17: 782-807.
- Jaffe, A., M. Trajtenberg & R. Henderson. 1993. Geographic Localization of knowledge spillovers as evidence by patent citations. *Quarterly Journal of Economics*, 63: 577-598.
- Jensen, M. & J. Meckling. 1976. Theory of the firm: Managerial behavior, agency theory, and ownership structure. *Journal of Financial Economics*, 3: 305-360.
- Jensen, M. & K. Murphy. 1990. Performance pay and top-management incentives. *Journal of Political Economy*, 98: 225-264.
- Jervis, R. 1985. *The logic of images in international relations*. Princeton, NJ: Princeton University Press.
- Johanson, S. & J. Vahlne. 1977. The internationalisation process of the firm - a model of knowledge development and increasing foreign market commitments.

Journal of International Business Studies, 8: 22-32.

Johnson, H.. 1970. The efficiency and welfare implications of the multinational corporation. In Charles Kindleberger, editor, *The international corporation*. Cambridge, Mass.: MIT Press.

Johnson, J.L. & B.K. Burton. 1994. Chaos and complexity theory for management: Caveat emptor. *Journal of Management Enquiry*, 3(4): 320-328.

Jones, C., Hesterly, W., & Borgatti, S. 1997. A general theory of network governance: Exchange conditions and social mechanisms. *Academy of Management Review*, 22: 911-945.

Jones, T.M. 1995. Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, 20(2): 404-437.

Joshi, V. & I.M.D. Little. 1996. *India's Economic Reforms 1991-2001*. Oxford: Clarendon Press.

Kapilinsky, R. 1987. *Micro-electronics and Employment Revisited: A Review*. ILO, Geneva

Kaplan, S. 1997. Corporate governance and corporate performance: a comparison of Japan, Germany and the U.S. *Journal of Applied Corporate Finance*. 9: 86-93.

Kaufman, S. 1993. *The origins of order*. Oxford: Oxford University Press.

Kelley, H. & J. Thibaut. 1978. *Interpersonal relations: A theory of interdependence*. New York: Wiley Publishers.

Khilnani, S. 1997. *The Idea of India*. London: Hamish Hamilton.

Kim, S.H. 1995. Expansion of markets and the geographic distribution of Economic activities: the trends in U.S. regional manufacturing structure, 1860-1987. *Quarterly Journal of Economics*, 110: 881-908.

Kim, W.S. and K.Y. Yun. 1988. Fiscal policy and development in Korea. *World Development*. 16(1): 65-83.

King, R. & R. Levine. Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics*, 108: 717-737.

Knack, S. & P. Keefer. 1997. Does social capital have an economic payoff? A cross-country investigation. *Quarterly Journal of Economics*, 122: 1251-1288.

Kogut, B. 1989. A note on global strategies. *Strategic Management Journal*, 10: 383-390.

- Kogut, B. 1991. Country capabilities and the permeability of borders. *Strategic Management Journal*, Summer Special Issue, 12: 33-47.
- Kogut, B. 1993. *Country Competitiveness: Technology and the Organizing of Work*, Oxford: Oxford University Press.
- Kogut, B. & H. Singh. 1988. The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19: 411-432.
- Kogut, B. & U. Zander. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. *Organisation Science*. 3: 383-397.
- Kogut, B. & U. Zander. 1993. Knowledge of the firm and the evolutionary theory of the multinational enterprise. *Journal of International Business Studies*, 24: 625-645.
- Kogut, B. & U. Zander. 1996. What firms do, co-ordination, identity, and learning. *Organisation Science*, 7: 502-518.
- Kohli, A. 1989. Politics of economic liberalization in India. *World Development*. 17(3): 305-28.
- Kohli, F.C. 1991. *The software process*. Datquest, October: 131-35.
- Kolm, S.C. 1984. *La bonne economie*. Paris: Presses Universitaires de France.
- Kornai, J. 1986. The soft budget constraint. *KYKLOS*, 39: 3-30.
- Kothari, R. 1970. *Politics in India*. Boston: Little, Brown.
- Kothari. R. 1986. Profiles of recent developments in Indian capital market. *Prashanika*. HCM-RIPA, Oct-Dec, Vol. XV, no.4.
- Kotler, P. 1976. *Marketing management: Analysis, planning, control*. Englewood Cliffs, NJ: Prentice-Hall.
- Kranton, R. 1996. Reciprocal exchange: a self-sustaining system. *American Economic Review*. 86: 830-851.
- Krueger, A.O. 1972. Evaluating restrictionist trade regimes: theory and measurement. *Journal of Political Economy*. 80: 48-62.
- Krugman, P. 1991. Increasing returns and economic geography. *Journal of Political Economy*, 99: 483-499.
- Krugman, P. & A. Venables. 1995. Globalization and the Inequality of Nations. *Quarterly Journal of Economics*, 110: 857-880.
- Krugman, P. 1991b. *Geography and trade*. Cambridge, MA: MIT Press.

- Krugman, P. 1998a. What's new about the new economic geography? *Oxford Review of Economic Policy*, 14: 7-17.
- Krugman, P. 1998b. *What happened to Asia*. MIT, department of economics, mimeo.
- Kular, S. 1999. IT stocks record never-before P/Es. *Economic Times*. 28 January.
- Kumar, A. 1987. Software policy: where are we headed? *Economic and Political Weekly*. 14 February, 290-94.
- Kuran, T. 1989. Sparks and prairie fires: a theory of unanticipated political revolution. *Public Choice*, 61: 41-74.
- La Porta, R., F. L. Silanes, A. Shleifer & R. Vishny. 1996. *Law and Finance*. National bureau of economic research working paper no. 5661.
- Lal, T. 1990. Primary capital markets: Some reflections. *Yojana*. June 16-30, Vol. 34: 9-12.
- Lall, S. 1987. *Learning to industrialize: the acquisition of technological capability in India*. Basingstoke: Macmillan.
- Lall, S. 1992. Technological capabilities and industrialization. *World Development*, 20: 165-186.
- Lall, S. 1995. Structural adjustment and African industry. *World Development*, 23: 2019-2031.
- Lambert, R.D. 1963. *Workers, factories and social change in India*. Princeton: Princeton University Press.
- Landa, J. 1994. *Trust, Ethnicity and Identity*. University of Michigan Press, Michigan.
- Lane, D. & R. Maxfield. 1996. Strategy under complexity: Fostering generative relationships. *Long Range Planning*, 29(2): 215-231.
- Langlois, R. 1992. Transaction-cost economics in real time. *Industrial and Corporate Change*, 1: 99-127.
- Lateef, A. 1998. *Linking up with the global economy: A case study of the Bangalore software industry*. Geneva: ILO
- Lazear, E. 1981. Agency, earnings profiles, productivity and hours restrictions. *American Economic Review*, 71: 606-620.
- Lecraw, D. 1989. The management of countertrade: factors influencing success. *Journal of International Business Studies*. 20: 41-59.

- Lenway, S. & T. Murtha. 1994. The state as strategist in international business research. *Journal of International Business Studies*, 25: 513-535.
- Lenway, S. & T. Murtha. 1991. *The idea of the state in the international business literature*, Division of Research, School of Business Administration, University of Michigan, Ann Arbor.
- Lenz, R.T. 1980. Strategic capability: A concept and framework for analysis. *Academy of Management Review*, 5: 225-234.
- Levine, R. 1997. Financial development and economic growth: view and agenda. *Journal of Economic Literature*, 35: 688-727.
- Levi-Strauss, C. 1966. *The elementary structure of kinship*. Boston: Beacon Press.
- Lindbeck, A. & D. Snower. 1988. Co-operation, harrassment, and involuntary unemployment: an insider-outsider approach. *American Economic Review*, 78: 167-188.
- Lippman, S. & R. Rumelt. 1982. Uncertain imitability: an analysis of interfirm differences in efficiency under competition. *Bell Journal of Economics*. 13: 418-438.
- Little, I.M.D. and J.A. Mirrlees. 1974. *Project Appraisal and Planning for Developing Countries*. London: Heinemann.
- Little, I.M.D., T. Scitovsky and M. Scott. 1970. *Industry and Trade in some Developing Countries*. New York: Oxford University Press.
- Losch, Alan. 1940. *The economics of location*. Jena: Fischer.
- Love, J. 1995. Knowledge, market failure and the multinational enterprise: A theoretical note. *Journal of International Business Studies*, 26: 399-407.
- Lucas, R. 1988. On the mechanics of economic development. *Journal of Monetary Economics*, 22: 3-42.
- Macy, M. 1993. Social learning and the structure of collective action. In E. Lawler et al (Ed.), *Advances in group processes*: 1-36. Greenwich, CT: JAI Press.
- Macy, M.W. 1997. Identity, interest and emergent rationality: An evolutionary synthesis. *Rationality and Society*, 9(4): 427-448.
- Madhok, A. 1995. Revisiting multinational firms' tolerance for joint ventures: a trust-based approach. *Journal of International Business Studies*. 26: 117-137.
- Madon, S. 1997. Information-based global economy and socio-economic development: A case of Bangalore. *Information Society*. Vol. 13: 227-43.

- Magee, S. 1977. Information and the multinational corporation: An appropriability theory of foreign direct investment. In Jagdish N. Bhagwati, editor, *The new international economic order*. Cambridge, Mass.: MIT Press.
- Mahalingam, S. 1989. Computer industry in India: strategies for late comer entry. *Economic and Political Weekly*. 21 October, 2375-84.
- Malhotra, S. 1995, The DQ top 20: Volume I. *Dataquest*. Vol. XII, No. 32. August 1-15.
- Malinowski, B. 1961. *Argonauts of the Western Pacific*. Dutton: New York.
- Mallott, M.J. 1990. *Mapping stakeholder patterns*. Paper presented at the annual meeting of the Academy of Management, San Francisco.
- Mansfield, E. 1989. The diffusion of industrial robots in Japan and the United States, *Research Policy*. 18: 183-192.
- Marcus, A.A. 1993. *Business and society: Ethics, government and the world economy*. Homewood, IL: Irwin.
- Marin, D. & M. Schnitzer. 1995. Tying trade flows: a theory of countertrade with evidence. *American Economic Review*. 85: 1047-1064.
- Martin P. & Turner. 1986. Grounded theory and organisational research. *Journal of Applied Behavioural Sciences*. Vol. 22. Issue 2: 141-57.
- Mason, E.S. 1939. Price and production policies of large scale enterprises. *American Economic Review*, 29: 61-74.
- Mayya, M.R. 1995. *Reflections on the changing scenario of the Indian stock markets*. Bombay: The A.D. Shroff Memorial Trust.
- Mazumdar, D. 1991. Import-Substituting Industrialization and Protection of the Small-Scale: The Indian Experience in the Textile Industry. *World Development*, 19(9): 1197-213.
- McFetridge, D. 1995. Knowledge, market failure and the multinational enterprise: a comment. *Journal of International Business Studies*, 26: 409-416.
- McGuire, J., A. Sundgren, & T. Schneeweis. 1988. Corporate social responsibility and firm financial performance. *Academy of Management Journal*, 31: 854-872.
- McKinnon, R. 1995. Intergovernmental competition in Europe with and without a common currency. *Journal of Economy Policy Modeling*, 17: 463-478.
- McKinnon, R. 1997. Market preserving federalism in the American monetary union. In, M. Blejer and T. Ter-Minassian (eds), *Macroeconomic dimensions of public finance: essays in honor of Vito Tanzi*, 73-93. London: Routledge.

- Milgrom, P. & J. Roberts. 1992. *Economics, organization and management*. New York: Prentice-Hall.
- Mill, J.S. 1958. *Considerations Representative Government*. New York: Liberal Arts Press.
- Mintzberg, H. & J. Waters. 1990. Does decision get in the way? *Organization Studies*, 11(1): 1-6.
- Mitchell, R.K., B.R. Agle, & D.J. Wood. 1997. Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, 22(4): 853-886.
- Mitra, A. 1977. *Terms of Trade and Class Relations*. London: Frank Cass.
- Mody, A. & K. Yilmaz. 1997. Is there persistence in the growth of manufactured Exports? Evidence from newly industrializing countries. *Journal of Development Economics*, 53: 447-470.
- Mueller, D. 1997. *Perspective on public choice*. Cambridge, U.K.: Cambridge University Press.
- Mukhi, V. & R. Chellam. 1988. Software - an emerging business. *Business India*. 28 August - 4 September: 124-51.
- Murtha, T. & S. Lenway. 1994. Country capabilities and the strategic state: how national political institutions affect multinational corporations' strategies. *Strategic Management Journal*, 15: 120-141.
- Musgrave, R. 1959. *Theory of public finance*. New York: McGraw.
- Myers, M. D., 1997, "Qualitative Research in Information Systems", Internet Edition
- Nagaraj, R. 1996. *India's Capital Market: Trends, Explanations and Evidence*, mimeo. New Delhi: Indira Gandhi Institute for Development Research.
- Nalebuff, B.J. & A.M. Brandenburger. 1996. *Coopetition*. New York: Doubleday.
- NASSCOM. 1998. *The software industry in India: A strategic review 1997-98*. New Delhi: NASSCOM.
- Nayyar, B.R. The Public Sector in India: The Dialectics of Legitimation and Rent Seeking. In L. Gordon and P. Oldenberg (eds.), *India Briefing 1992*, The Asia Society, Boulder, Col.: Westview Press.
- Nayyar, D. 1978. Industrial Development in India: Some reflections on growth and stagnation. *Economic & Political Weekly*. Vol. XIII, nos. 31-33: 1265-78.

- Nayyar, D. 1996. *Economic liberalisation in India: Analytics, experience and lessons*. RC Dutt Lectures on Political Economy, Calcutta: Orient Longman.
- Neale, W. 1976. *Monies in societies*. San Francisco: Chandler and Sharp.
- Nelson, R. 1992. Recent writings on competitiveness: boxing the compass, *California Management Review*. 117-125.
- Nelson, R. and S. G. Winter. 1982. *An Evolutionary Theory of Economic Change*. Harvard University Press, Cambridge, MA.
- Newgren, K.E., A.A. Rasher, M.E. LaRoe, & M.R. Szabo. 1985. Environmental assessment and corporate performance: A longitudinal analysis using a market-determined performance measure. In L.E. Preston (Ed.), *Research in corporate social performance and policy*, vol. 7: 153-164. Greenwich, CT: JAI Press.
- Nicholson, J. 1998. Survey of Information Technology in India. *Financial Times*. December.
- Nonaka, I. & K. Takeuchi. 1995. *The knowledge-creating company*. Oxford: Oxford University Press.
- Noorderhaven, N. 1995. Trust and transactions: towards transaction cost analysis with a differential behavioral assumption, *Tijdschrift voor Economies en Management*. 15: 5-18.
- Nooteboom, B. 1996. Trust, opportunism and governance: a process and control model. *Organisation Studies*. 17: 985-1010.
- North, D. 1990. *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- North, D.C. 1994. Economic performance through time. *American Economic Review*. 84: 359-368.
- Nozick, R. 1974. *Anarchy, State and Utopia*. New York: Basic Books.
- Oates, W. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- Oberschall, A. & H. Kim. 1996. Identity and action. *Mobilization*, 1: 63-86.
- O'Grady, S. & H. Lane. 1996. The psychic distance paradox. *Journal of International Business Studies*, 27: 305-333.
- Ohmae, K. 1985. *Triad Power: The Coming Shape of Global Competition*. Free Press, New York.
- Ohmae, K. 1989. "The global logic of strategic alliances." *Harvard Business Review*. 67: 143-154.

- Ohmae, K. 1990. *The Borderless World*. Harper, New York.
- Olson, M. 1991. Autocracy, democracy, and prosperity, in Zeckhauser, R. (editor), *Strategy and Choice*. Cambridge: MIT Press.
- Olson, M. 1992. The hidden path to a successful economy, in Clague, C./Rausser, G., (eds.), *The Emergence of Market Economies in Eastern Europe*, London: Blackwell Publishers.
- Olson, M. 1965. *The logic of collective action*. Cambridge, MA: Harvard University Press.
- Olson, M. 1982. *The rise and decline of nations*. New Haven, CT: Yale University Press.
- Orbell, J. & R. Dawes. 1991. A "cognitive miser" theory of cooperators' advantage. *American Political Science Review*, 85: 515-28.
- Orru, M., N. Biggart & G. Hamilton. 1997. *The Economic Organisation of East Asian Capitalism*, New York: Sage Publications.
- Ostrom, E. 1990. *Governing the common: the evolution of institutions for collective action*. Cambridge, U.K.: Cambridge University Press.
- Ostrom, E & J. Walker. 1997. Neither markets nor states. In Dennis Mueller, editor, *Perspectives on public choice*. Cambridge, U.K.: Cambridge University Press.
- Pagano, M. 1993. The flotation of companies on the stock market: a Coordination failure model. *European Economic Review*, 37: 1101-1125.
- Pandya, V.H. 1992. Securities and Exchange Board of India: Its role, powers, functions and activities. *Chartered Secretary*. Sept., Vol. 22, No.9.
- Parasuraman, A., V. Zeithaml, & L. Berry. 1985. A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 4: 41-50.
- Patane, J.R. & J. Jurison. Is global outsourcing diminishing the prospects for American programmers? In *Journal of Systems Management*, June: 6-10.
- Patel, B.B. 1988. Workers of closed mills; patterns and problems of their absorption in a metropolitan labour market. New Delhi: IBH Publishing Company.
- Parkhe, A. 1991. Interfirm diversity, organisational learning, and longevity in global strategic alliances. *Journal of International Business Studies*, 22: 579-602.
- Patnaik, P. 1994. Macro-economic policy in times of globalisation. *Economic and Political Weekly*. 16 April, 917-21.

- Pauly, L. & S. Reich. 1997. National structures and multinational corporate behavior: enduring differences in the age of globalization. *International Organization*, 51: 1-30.
- Peng, M. & P. Heath. 1996. The growth of the firm in planned economies in transition: institutions, organizations and strategic choice. *Academy of Management Review*, 21: 492-528.
- Putnam, R. 1996. The strange disappearance of Civic America. *The American Prospect*, 24: 34-48.
- Perkins, D.H. 1988. Reforming China's economic system. *Journal of Economic Literature*. 26(2): 601-45.
- Podolny, J. 1993. A status-based model of market competition. *American Journal of Sociology*, 98: 829-872.
- Polonsky, M. 1995. A stakeholder theory approach to designing environmental marketing strategy. *Journal of Business and Industrial Marketing*, 10: 29-46.
- Polyani, K. 1944. *The great transformation*. New York; Rinehart and Company.
- Polyani, K. 1957. *Trade and markets in the early empires*. (With Arensberg, C. & Pearson, H.) New York: Free Press.
- Polyani, K. 1966. *Dahoney and the slave trade*. Washington: University of Washington Press.
- Polyani, K. 1971. *Primitive, archaic and modern economies*. (With Dalton, G.) Boston, MA: Beacon Press.
- Porter, M.E. 1980. *Competitive strategy*. NY: Free Press.
- Porter, M.E. 1981. The contribution of industrial organization to strategic management. *Academy of Management Review*, 6: 609-620.
- Porter, M. 1990. *The competitive advantage of nations*. New York: Free Press.
- Posner, R. 1992. *Economic analysis of law*. Boston: Little Brown.
- Post, J.E., E.A. Murray, R.B. Dickie, & J.F. Mahon. 1983. The public affairs function. *California Management Review*, 36(1): 135-150.
- Prahalad, C.K & G. Hamel. 1994. "Strategy as a field of study: Why search for a new paradigm?" *Strategic Management Journal*, Vol. 15: 16.
- Preston, L.E. & J.E. Post. 1975. *Private management and public policy: The principle of public responsibility*. Englewood Cliffs, NJ: Prentice-Hall.

- Preston, L.E. & H. Sapienza. 1990. Stakeholder management and corporate performance. *Journal of Behavioral Economics*, 19(4): 361-375.
- Preston, L.E. 1994. *Stakeholder issues: Four essays*. Working paper, Center for International Business Education and Research, College of Business and Management, University of Maryland.
- Putnam, R. 1988. Diplomacy and domestic politics: the logic of two level games. *International Organization*, 42: 427-460.
- Raghunathan, V. 1991. *Stock Exchanges and Investments: Straight Answers to 100 Nagging Questions*. New Delhi: Tata McGraw Hill.
- Raiffa, H. 1982. *The Art and Science of Negotiation*. Cambridge: Harvard University Press.
- Rajan, R. & L. Zingales. 1995. What do we know about capital structure: some evidence from international data. *Journal of Finance*. December, 50(5): 1421-60.
- Rajan, R. & L. Zingales. 1998. Financial dependence and growth. *The American Economic Review*. June: 559-86.
- Raman, M. 1996. International Business & Emerging Market Business Systems. MPhil Dissertation, City University Business School
- Ramaswamy, U. 1983. Work, union and community; industrial man in south India. New Delhi: Oxford University Press.
- Rao, M.G. & T.K. Sen. 1996. *Fiscal Federalism in India: Theory and Practice*. New Delhi: Macmillan India.
- Raub, W. & J. Weesie. 1990. Reputation and efficiency in social institutions: an example of network effects. *American Journal of Sociology*. 96: 626-654.
- Rebelo, S. 1991. Long-run policy analysis and long-run growth. *Journal of*
- Reich, R.B. 1991. *The Work of Nations: Preparing Ourselves for the 21st Century Capitalism*, New York: Alfred Knopf.
- Reserve Bank of India. 1995. *Report on Currency and Finance 1994-1995*. Bombay: RBI.
- Riskin, C. 1987. *China's Political Economy: The Quest for Development since 1949*. Oxford: Oxford University Press.
- Robinson, J. 1933. *The economics of imperfect competition*. London, UK: MacMillan.
- Rodrik, D. 1997. *Has globalization gone too far*. Washington, D.C.: Institute of International Economies.

- Roe, M. 1994. *Strong Managers, Weak Owners: the Political Roots of American Corporate Finance*. Princeton: Princeton University Press.
- Roe, M. 1997. The political roots of American corporate finance. *Journal of Applied Corporate Finance*. 9: 8-22.
- Romer, P. 1986. "Increasing returns and long-run growth," *Journal of Political Economy*.
- Rosentein-Rodan, P. 1943. Problems of industrialisation in Eastern and Southeastern Europe. *Economic Journal*. 53: 202-12.
- Rowley, T.J. 1997. Moving beyond dyadic ties: A network theory of stakeholder influences. *Academy of Management Review*, 22(4): 887-910.
- Roy, C. & U. Datta. 1992. Finances of the private corporate sector: 1955-56 to 1986-87. *Journal of Indian School of Political Econmy*, Oct-Dec..
- Roy, T. & K. Sen. 1994. Real and financial flows in the Indian economy, 1970-89. *International Journal of Development Banking*, 12 (1)
- Rudolph, L. & S. Rudolph. 1987. *In Pursuit of Lakshmi: The Political Economy of the Indian State*. Chicago: University of Chicago Press.
- Rugman, A. 1980. Internalization as a general theory of foreign direct investment. *Weltwirtschaftliches Archiv*, 116: 365-379.
- Rugman, A., editor. 1993. Special edition on Michael Porter's diamond of competitive advantage. *Management International Review*, 33.
- Rugman, A. 1997. Globalization, governments and international business: a business analytic approach. In, J. Dunning, ed., *Governments, Globalization and International Business*. Oxford: Oxford University Press.
- Rugman, A., J. Van den Broeck & A. Verbeke., editors. 1995. *Beyond the Diamond: Research in Global Management*. Greenwich, Conn: JAI Press.
- Sahlins, M. 1972. *Stone age economics*. Chicago: Aldine Atherton.
- Sahni, S.K. 1985. *Stock Exchanges in India: Practices, Problems, Prospects*. New Delhi: North Publishing Corporation.
- Sanchez, R. 1997. Strategic management at the point of inflection: Systems, complexity and competence theory. *Long Range Planning*, 30(6): 939-946.
- Sapir, A. 1996. The effects of Europe's internal market programme on production and trade: a first assessment. *Weltwirtschaftliches Archiv*, 132: 457- 475.
- Schelling, T.C. 1960. *The strategy of conflict*. Cambridge, MA: Harvard University Press.

- Schelling, T.C. 1969. *Neighborhood tipping and discrimination*. Working paper, Harvard University, Kennedy School of Government.
- Schlicht, E. 1993. On custom. *Journal of Institutional and Theoretical Economics*. 149: 178-203.
- Schmalensee, R. Product differentiation advantages of pioneering brands. *The American Economic Review*. June 1982: 349-365.
- Schrum, W. & R. Withnow. 1988. Reputational status of organizations in technical systems. *American Journal of Sociology*. 94: 882-912.
- Schumpeter, J.A. 1942. *Capitalism, socialism and democracy*. NY: Harper.
- Schumpeter, J. 1934. *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Schware, R. 1995. Competing in software. In UNCTAD, *Advanced Technology Assessment System: Information Technology for Development*, Issue 10, Autumn
- Scitovsky, T. 1954. Two concepts of external economies. *Journal of Political Economy*. 52(2). 143-51.
- Sen, P. 1994. Software exports from India: A systemic analysis. *Electronics Information & Planning*. November: 55-63.
- Shan, W. & W. Hamilton. 1991. Country-specific advantage and international cooperation. *Strategic Management Journal*. 12: 419-432.
- Sharma, A. 1994. Bangalore: The silicon valley of India. *Software Policy*. October: 84-88.
- Shepsle, K. 1989. Studying institutions, some lessons from the rational choice approach. *Journal of Theoretical Politics*, 1: 131-149.
- Shleifer, A. & R.W. Vishny. 1986. Large Shareholders and Corporate Control. *Journal of Political Economy*. June, 96(3): 461-88.
- Simmel, G. 1950. Superordination and subordination. In K.T. Wolf (Ed.), *The sociology of George Simmel*. Illinois: Free Press.
- Simmel, G. 1978. *The philosophy of money*. London: Routledge.
- Simon, H. 1991. Organizations and Markets. *Journal of Economic Perspectives*, 5: 25-44.
- Simon, H. 1992. Decision-making and problem-solving. In M. Zey (Ed.), *Decision making: Alternatives to rational choice models*. Newbury Park: Sage publications.

- Singh, A. & J. Hamid. 1992. *Corporate financial structures in developing countries*. IFC Technical Paper No. 1. Washington, DC: The World Bank.
- Singh, A. 1993. *The Stock Market and Economic Development: Should Developing Countries Encourage Stock Markets?* UNCTAD Review. 4: 1-28.
- Singh, A. 1994. How do large corporations in developing countries finance their growth? In Richard O'Brien (ed.) *The AMEX Bank Prize Essays: Finance and the International Economy*. New York: Oxford University Press. 8: 121-35.
- Singh, A. 1996. The stock market, the financing of corporate growth and Indian industrial development. *Journal of International Finance*. 4(2): 1-17.
- Singh, A. 1997. Financial liberalisation, stock markets and economic development. *Economic Journal*. May.
- Smith, A. 1996. To intervene or not to intervene: A biased decision. *Journal of Conflict Resolution*, 40: 16-40.
- Sorensen, A. 1983. Processes of allocation to open and closed positions in social structure. *Zeitschrift Fuer Soziologie*, 12: 203-224.
- Sorge, A. 1991. Strategic fit and the societal effect: interpreting cross-national comparisons of technology, organisation, and human resources, *Organisation Studies*. 12: 161-190.
- Spence, M. 1973. *Market signalling*. Cambridge, MA: Harvard University Press.
- Spencer, B.A. & G.S. Taylor. 1987. A within and between analysis of the relationship between corporate social performance and financial performance. *Akron Business and Economic Review*, 18: 7-18.
- Spender, J.C. & R. Grant. 1997. Knowledge and the firm: Overview. *Strategic Management Journal*, Winter Special issue, 17: 5-9.
- Spender, J.C. 1996. Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, winter special issue, 1996, 17: 45-62.
- Spender, J.C. 1997. Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, Special issue, 17(4): 45-62.
- Sridharan, E. 1989. World Trends and India's software products. *Dataquest*. December: 53-56.
- Stacey, R.D. 1996. *Strategic management & organisational dynamics*. London, UK: Pitman Publishing.
- Stern, Nicholas. 1989. The economics of development: a survey. *Economic Journal*, 99: 597-685.

- Stevenson, H. 1976. Defining corporate strengths and weaknesses. *Sloan Management Review*, 17(3): 51-68.
- Stigler, G. 1966. *The theory of price*. New York: MacMillan.
- Stiglitz, J. 1994. *Whither socialism?* Cambridge, MA: MIT Press.
- Strand, R. 1983. A systems paradigm of organizational adaptations to the social environment. *Academy of Management Review*, 8: 90-96.
- Stremlau, J. 1996. Dateline Bangalore: Third World Technopolis. *Journal of Foreign Policy*. March: 152-168.
- Subramanian, C.R. 1992. *India and the Computer*. New Delhi: Oxford University Press.
- Summers, L. 1988. Relative wages, efficiency wages, and Keynesian unemployment *American Economic Review*, 78: 383-388.
- Sutton, R. I., 1997, "The Virtues of Closet Qualitative Research", *Organisation Science*, Vol. 8, No. 1, January-February, 97-106
- Swanson, D. 1995. Addressing a theoretical problem by reorienting the corporate social performance model. *Academy of Management Review*, 20: 43-64.
- Tallman, S. 1988. Home country political risk and foreign direct investment in the United States. *Journal of International Business Studies*, 19: 219-234.
- Taylor, M. 1987. *The possibility of cooperation*. Cambridge, U.K.: Cambridge University Press.
- Thakur, R. 1993. Restoring India's economic health. *Third World Quarterly*, Vol. 14, No.1: 144.
- Tiebout, C. 1956. A pure theory of local expenditures. *Journal of Political Economy*, 64: 416-424.
- Tilley, L. 1990. A passage to India. *Financial Times*. London. May 17: 36.
- Toyne, B. 1988. International exchange: a foundation for theory building in international business. *Journal of International Business Studies*. 13: 1-17.
- Tyagi, S. 1994. The Giant Awakens. *The Columbia Journal of World Business*, Spring: 16.
- Turner, J.C. 1982. Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relationships*. Cambridge: Cambridge University Press.

- Ullman, A. 1985. Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance. *Academy of Management Review*, 10: 540-577.
- Uzzi, B. 1988. Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly*. 42, 1988: 35-67.
- Van Maanen, J., 1983, *Qualitative Methodology*, Sage, Beverly Hills
- Van Maanen, J., J.M. Dabbs, & R.R. Faulkner, 1982, *Varieties of Qualitative Research*, Sage, Beverly Hills, London, New Delhi.
- Vanberg, V. 1994. *Rules and choice in economics*. London: Routledge.
- Vanaik, A. 1990. *The Painful Transition: Bourgeois Democracy in India*. London: Verso.
- Varma, J.R. *Is the BSE Sensitive Index better than the National Index?* Working paper no. 988, Oct-Dec, Indian Institute of Management, Ahmedabad.
- Venables, A. 1996. Equilibrium locations of vertically linked industries. *International Economic Review*, 37: 341-359.
- Vernon, R. 1966. "International investment and international trade in the product cycle." *Quarterly Journal of Economics*. 80: 190 - 207.
- Von Hayek, F.A. 1967. *Studies in Philosophy, Politics and Economics*. London: Routeledge and Kegan Paul.
- Von Hayek, F.A. 1986. *The Road to Serfdom*. London: Routeledge and Kegan Paul.
- Wade, R. 1985. The role of government in overcoming market failure: Taiwan, South Korea, and Japan, in Helen Hughes (ed.) *Explaining the success of East Asian Industrialization*. Cambridge: Cambridge University Press.
- Wade, R. 1996. Japan, the World Bank, and the art of paradigm maintenance: the East Asian miracle in proper perspective. *New Left Review*. 217.
- Walker, G., Kogut, B. & Shan, W. 1997. Social capital, structural holes and the formation of an industry network. *Organization Science*. 8: 109-126.
- Weber, A. 1909. *Theory of the location of industries*. Chicago, Il: University of Chicago Press.
- Weiner, M. 1989. *The Indian Paradox: Essays in Indian Politics*. New Delhi: Sage.
- Weingast, B. 1997. Political foundations of democracy and the rule of law. *American Political Science Review*, 91: 245-263.

- Weiss, A. 1988. High school graduation, wage and performance. *Journal of Political Economy*, 96: 785-820.
- Weiss, A. 1995. Human capital versus signalling explanations of wages. *Journal of Economic Perspectives*, 9: 133-154
- Weitzman, M.L. 1984. *The share economy*. Cambridge MA: Harvard University Press.
- Weitzman, M.L. 1984. The simple macroeconomics of profit sharing. *American Economic Review*. 75: 937-953.
- Wessel, D. 1998. *Prosperity: The coming twenty-year boom and what it means to you*. New York: Random House, 218-37.
- Westphal, L. 1997. Editorial: the pendulum swings – an apt analogy? *World Development*, forthcoming.
- White, H. 1970. *Chains of opportunity: System models of mobility in organizations*. Cambridge, MA: Harvard University Press.
- Whitley, R. 1990. Eastern Asian enterprise structures and the comparative analysis of forms of business organisations. *Organisation Studies*. 11: 47-74.
- Whitley, R.. 1991. “The social construction of business systems in East Asia” *Organization Studies*. 12: 1-28.
- Whitley, R. 1992. *East Asian Business Systems*. Sage, London.
- Williamson, O. 1975. *Markets and Hierarchies*. New York: Free Press.
- Williamson, O. 1985. *Economic Institutions of Capitalism*. New York: Free Press.
- Williamson, O. 1996. Economic organization: the case for candor. *Academy of Management Review*, 21: 48-57.
- Williamson, S. & R. Wright. 1994. Barter and monetary exchange under private information. *American Economic Review*, 84: 104-123.
- Wilson, I.H. 1977. Socio-political forecasting: A new dimension to strategic planning. In A.B. Carroll (Ed.), *Managing corporate social responsibility*: 159-169. Boston: Little, Brown.
- Winter, S. 1998. Comments on Arrow and on Lucas. In R. Hogarth & M. Reder.(Eds.), *Rational choice: The contrast between economics and psychology*: 243-250. Chicago: University of Chicago Press.
- Wolman, W. & A. Colamosca. 1997. *The Judas economy: The triumph of capital and the betrayal of work*. Reading, MA: Addison-Wesley, 83-106.

- Wood, D.J. 1991a. Corporate social performance revisited. *Academy of Management Review*, 16(4): 691-718.
- Wood, D.J. 1991b. Social issues in management: Theory and research in corporate social performance. *Journal of Management*, 17(2): 383-406.
- World Bank. 1981. *Accelerated development in Sub-Saharan Africa: An agenda for action*. Washington: World Bank.
- World Bank. 1992. *India: An Information Technology Development Strategy*. Washington D.C.: World Bank.
- World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. Oxford: Oxford University Press.
- World Bank. 1997. *World Development Report: The State in a Changing World*. Oxford: Oxford University Press.
- World Bank. 1998. *World Development Report: Knowledge for Development*. Oxford: Oxford University Press.
- Yarbrough, B. & R. Yarbrough. 1992. *Co-operation Economy*, New York: Cambridge University Press and *Governance in International Trade*, New Jersey: Princeton University Press.
- Yin, R. K., 1984, *Case Study Research: Design and Methods*, SAGE, Beverly Hills, London, New Delhi.
- Yourdon, E. 1992. *Decline and fall of the American programmer*. Englewood Cliffs: Yourdon Press, 279-312.
- Zukin, S. & P. DiMaggio. 1990. *Structures of Capital: the Social Organization of the Economy*, New York: Cambridge University Press.

APPENDIX

I interviewed executives from the following computer companies and industry bodies in India in February 1998.

Infosys Technologies

Wipro Infotech

Tata Consultancy Services

AB Infosys

Newgen Software Technologies

Texas Instruments India

Novell India

National Association of Software and Service Companies (NASSCOM)

The executives were asked the following questions in semi-structured interviews, i.e., all the questions were covered but they were as starting points to get insight into the overall evolution of the industry, the strategic challenges facing the industry and the future for growth in the city of Bangalore.

1. What is the nature of your organisation's involvement with the software industry in India?
2. Where do your company's products and services fit in the overall value chain?
3. Do you cater mainly to the domestic or foreign market? If the latter which are your biggest markets?
4. If you are a multinational, what are the costs and benefits of investing in India compared to the other alternatives?
5. What percentage of your company's revenues are generated by tackling the Y2K problem?
6. What are your employee turnover statistics? How difficult is it to retain workers in the present environment?
7. Where is the industry and your organisation headed?
8. Which do you think are the best locations for investment in the software sector in India?
9. Has the competition between cities given your organisation any concrete benefits?
10. Are there any advantages from the clustering of the industry around Bangalore?
11. Is Bangalore a victim of its own success and what needs to be done to maintain the momentum in terms of investments?